

OSTEOPATHIC
DIAGNOSIS
AND
TECHNIQUE

BIGSBY

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OSTEOPATHIC DIAGNOSIS and TECHNIQUE

WITH CHAPTERS ON
OSTEOPATHIC LANDMARKS

BY

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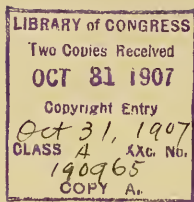
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DEDICATED to the founder, DR. A. T,
STILL and his disciples, who have taken
up the fight for the advancement of pure
Osteopathy.



PREFACE

In preparing this work the author has been endeavoring to fulfill a long-felt and, of late, an often-expressed want.

Students, teachers, practitioners and writers have needed a logical classification of osteopathic treatments and a text book on a par with those of other sciences; one with its technique founded on mechanical principles; something that can be reproduced, as well as described, with anatomical correction as its result.

It is hoped that it can no longer be said that "one cannot reproduce another's methods of treatment; that each must originate their own."

Things are advancing too fast. Who of us that have practiced a number of years cannot look back to cases that our originality worked too slow, and the patient is now out of our reach? True, we are not all adapted to the same methods. The short and fat, the tall and spare, the strong or weak find their advantages and disadvantages. For this reason a greater number of methods are described. Our different groups of muscles, with their varying strength, also complicate matters.

The technique of the book is built on the simple mechanical principles as a ground work, leverage in its different forms playing the most important part; as it does in mechanics.

Therefore if we wish greater efficiency get well out on the patient's levers, as in the (V.I.E.) and (V.L.E.) treatments, where not only trunk but limb leverage is added beyond, to such a length that other support is required to carry them. It is the utilizing of these Osteopathic applications of mechanical principles that has made necessary the movable supports, such as Osteopathic swings, slings, suspension hooks and swinging tables.

Realizing the danger of questionable adjuncts, there has been an endeavor to lessen the strain on practitioners by various methods and means while keeping within the ranks of true Osteopathy.

I thank the various writers of Osteopathic books, as well as the faculties of the American School of Osteopathy during the course ending June, 1901; the faculty of the Philadelphia College of Osteopathy during the past few years; many practitioners that have aided from time to time, and, most of all, Dr. A. T. Still for the aid received, both directly and indirectly.

I wish to thank Dr. Earl Scanland Willard for his encouragement and also for the correction of a part of the text, as well as for his adoption of the symbol classification in his classes in the Practice of Osteopathy.

I thank Dr. J. B. Buehler for his aid as stenographer when a senior.

I am indebted to my wife for her work in the freehand drawing.

THE AUTHOR.

KEY TO SPINAL AND RIB SYMBOLS, ETC.

(Explained on pages 4 and 5)

(STRUCTURE)	(REGION)	(NATURE OF)	No.
M—Muscles	N—Neck	G—General	1
	U—Upper Dorsal		
V—Vertebra	I—Inter Scapular	I—Indirect	2
R—Ribs	D—Mid. and Low Dorsal		3
I—Innominate	L—Lower, if Ribs Lumbar	D—Direct	
	S—Sacral		
B—Bones (Abbreviations)		E—Extreme	
	C—Coccygeal		

KEY TO LIMB SYMBOLS

(Explained on pages 4 and 5)

(STRUCTURE)	(DIRECTION)	(NATURE OF)
	BU—Backward —Upward	I—Indirect
Fem.—Femur (And other bones of limbs abbreviated)	B—Backward FU—Forward —Upward FD—Forward —Downward	D—Direct
I—Innominate	A—Anterior P—Posterior	E—Extreme

(STRUCTURE)	(REGION OR END)	(DIRECTION)
Rad.—Radius (And other long bones)	E—At Elbow W—At Wrist (And other joints)	P—Posterior
Car.—Carpus	Sca.—Scaphoid (or others)	A—Anterior
Phal.—Phalanges	I—No. 1	

KEY TO VISCERAL SYMBOLS

(Explained on pages 4 and 5)

(ACTION)

(STRUCTURE)

(NAME)

E--Emptying

V--Viscera

Col.--Colon
(or other Viscera)

R--Replacing

KEY TO NECK SYMBOLS

(An exception to page 1)

(Exceptions to page 1. Explained on pages 4 and 5)

(STRUCTURE)

(REGION)

(ASPECT)

M--Muscles

N--Neck

P--Posterior

L--Lateral

A--Anterior

EXPLANATION OF KEY TO SYMBOLS.

The meaning of the symbols used to designate the various treatments is as follows:

THE FIRST COLUMN indicates the **structures** treated, as **M., V., R., I., B.**, meaning Muscles, Vertebrae, Ribs, Innominates and other Bones.

THE SECOND COLUMN indicates the **region** treated, as **N., U., I., D., L., S., C.**, meaning the Neck, Upper Dorsal, Interscapular, Middle and Lower Dorsal, Lumbar (or Lower when indicating ribs), sacral and Coccygeal regions.

THE THIRD COLUMN indicates the **nature or degree** of treatment, as **G., I., D., E.**, meaning General, Indirect, Direct and Extreme.

NOTE: Though there are two letter **D's** and three letter **I's** used, they each have different meanings, because they are in different columns.

THE FOURTH COLUMN indicates the different treatments having the same symbol. For example, (**R.I.E.**) 4 indicates **Ribs** whose angles lie in the **Interscapular region**, **Extreme treatment No. 4.**

Other treatments producing a similar effect on same structures and region have same symbol, but are numbered 1, 2 and 3.

To memorize the key to these symbols is as simple as learning a college yell. Thus:

M-V—R-I-B.

N-U—I—D—LS-C.

G—I—D—E.

I—2—3—.

Speak or think of it thus:

M-V—R-I-B.

N-U (New) **I-D** (idea) **L-S-C** (Less-see) (Let us see).

G (u) I-D-E.

I-2-3.

EXCEPTIONS TO KEY TO SYMBOLS.

In **muscular** treatment of the **neck** the letters **P-L-A** used in the **third column** indicate the Posterior, Lateral and Anterior aspects respectively.

In the **Innominate** treatments the middle letters indicate the position of bone before treatment.

In **Visceral** treatments the letters **E & R** of first column indicate the words emptying and replacing. The letter **V** in second column meaning viscera. The abbreviations indicating the individual viscera.

In the treatment of the **Limbs** abbreviations are used in first column. In second column the letters indicate the end of the bone slipped, or the number of the bone, as in the phalanges.

In the hip and shoulder joints and innominates the second column indicates the direction of dislocation.

Two letters in symbol without spacing and period between indicate that they belong in same column.

MUSCULAR TREATMENT

CLASSIFIED SYMBOL INDEX,				PAGES
				PRIN. TECH.
Muscles of Neck, Posterior, or	(M.N.P.)	1, 1 Mod., 2, 3, 3 Mod.		1470-73
M " " " Lateral	(M.N.L.)	1, 2, 2 Mod., 3, 3 Mod.		1475-77
M " " " Anterior	(M.N.A.)	1, 1 Mod., 2, 2 Mod., 3 and 4 Mod.		1478-81
C (Combined muscular and vertebral treatment.)				
C " " " Indirect, or	(C.N.I.)	1, 2, 2 Mod.		1583-85
C " " " Direct or	(C.N.D.)	1, 1 Mod.		1586
STRUCTURE.	REGION.	DEGREE.	SYMBOL AND NO.	
Muscles	Upper Dorsal	General	(M.U.G.) 1	1688
M " "	U " "	Direct	(M.U.D.) 1	1689
M " "	U " "	Extreme	(M.U.E.) 1, 2	1690
M " "	Interscapular	General	(M.I.G.) 1, 2	1691
M " "	I " "	Direct	(M.I.D.) 1, 2	1692
M " "	I " "	Extreme	(M.I.E.) 1	1793
M " "	Dorsal (mid. & low)	General	(M.D.G.) 1, 1 Mod., 2, 3	1793-94
M " "	D " "	Direct	(M.D.D.) 1, 1 Mod. 2, 3	1794-95
M " "	D " "	Extreme	(M.D.E.) 1, 2, 3	1897-98
M " "	Lumbar	Indirect	(M.L.I.) 1, 2	1899
M " "	L " "	Extreme	(M.L.E.) 1, 2, 3, 4	18101-2
M " "	Sacral	Direct	(M.S.D.) 1	19103
M " "	Coccygeal	D " "	(M.C.D.) 1	19104

VERTEBRAL TREATMENT

STRUCTURE.	REGION.	DEGREE.	SYMBOL AND NO.	PAGES	
				PRIN.	TECH.
Vertebra	Neck	General	(V.N.G.) 1, 2, 2 Mod., 3	20	105-6
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V "	N "	Direct	(V.N.D.) 1, 2, 3, 3 Com., 4, 5	20	111-4
V "	N "	Extreme	(V.N.E.) 1, 2, 3, 4, 4 M.O.D 5	21	116-9
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V "	Interscapular	General	(V.I.G.) 1	23	136
V "	I "	Direct	(V.I.D.) 1, 2, 3	23	136-7
V "	I "	Extreme	(V.I.E.) 1, 2	23	138
V "	Dorsal (mid. & low)	General	(V.D.G.) 1, 2, 2 Mod. 3, 3, Mod. 4, 5, 5 Mod.	24	139-40
V "	D "	Indirect	(V.D.I.) 1	24	141-2
V "	D "	Direct	(V.D.D.) 1, 1 Mod., 2, 3	24	142
V "	D "	Extreme	(V.D.E.) 1, 2, 3, 4, 5, 5, Mod. 6	24	144-5
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V "	L "	Direct	(V.L.D.) 1, 2, 2 Mod. 3, 3 Mod. 4, 5	26	154-6
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V "	L "	Extreme	(V.L.E.) 1, 2, 3, 4, 5	27	160

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V "	C "	Extreme	(V.C.E.) 1	28	166
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EXPLANATION OF THE TECHNIQUE

SYMBOLS.

The symbols used to indicate the various treatments are of value in writing Osteopathic prescriptions, as in keeping case records, communicating with other Osteopaths, preparing articles for publication, teaching the practice of Osteopathy, etc.

These symbols, together with the logical classification and naming of treatments, should aid practitioners in the understanding and interchange of their mechanical technique, as Esperanto does the interchange of languages.

NAMING OF TREATMENTS.

Treatments are named according to the mechanical principles they contain, as well as the method of applying them.

They have been used in class and revised until their naming is sufficiently clear to enable students to perform the treatments when the names of the treatments are given.

THE SUBDIVISIONS OF THE TECHNIQUE.

USE.

Indicates the special use, range of its application, etc., not indicated in the symbol.

POSTURE.

Indicates the general position, posture or pose of both operator and patient. Also any support other than treating table, also the fixtures used as supports.

POSITION.

Under position is given the position in detail of the hands and other parts of the anatomy of either operator or patient.

PRINCIPLE.

This heading is used where the mechanical principle can be further illustrated than was convenient in naming of the treatment.

ACTION.

This indicates the act of adjustment. When subdivided by letters, they occur simultaneously. When subdivided by figures they transpire consecutively.

DEGREE.

Indicates the amount of pressure or the limit safely given. Due consideration should be given the strength and weight of the patient.

CAUTION.

Those mentioned are examples of what have caused injury in previous cases, or evidently would if carelessly applied. Or important details that, if omitted, would result in a failure.

THE SIGNIFICANCE OF CAPITALS AND BOLD-FACED TYPE IN DESCRIBING THE TECHNIQUE OF TREATMENTS.

The technique given under the headings **Posture**, **Position**, **Action**, etc., is printed in capitals not only for emphasis, but to enable the student or practitioner to follow the text when trying them on a subject or patient.

The words referring to the anatomy of the operator, as used in treating, are, in bold-faced type.

The references to the patient's anatomy are in ordinary type.

THE MEANING OF HAND ONE, HAND TWO, SHOULDER ONE, FOOT ONE, ETC.

Hand one is always the operator's hand that is at the lesion, unless otherwise specified.

The corresponding side or any of its parts of either patient or operator is numbered **one**, as **shoulder one** of operator, or shoulder one of patient.

They are differentiated by printing the parts of the operator's anatomy in bold-faced type.

The operator's hand at the lesion is either the right or left, and furnishes the **key** showing which side is number one; the opposite side or any part of them is number two.

Thus, the operator's **right hand** and the patient's right hand could be number one.

But the operator's **left hand** and the patient's right hand could not both be numbered **one**.

CLASSES OF TREATMENT.

G. GENERAL.

This is the most common form.

It is the mildest, the least dangerous to apply, the easiest on the operator. It is sometimes best to begin a case with; not always, however.

This is the class of treatment that we are apt to drift back into if we are not well up in technique and diagnosis. Even then, there is a tendency for Osteopaths to lapse back into a routine of time killers that are easy to apply, even though the patient has passed the stage indicating their use.

These are often used as a preparatory treatment to specific work. Patients requiring daily treatment should be able to take this without being overtreated, as would be the case with direct or extreme treatments.

I. INDIRECT.

This is the class of treatments where no direct pressure is brought to bear on lesion. The muscular lesions receive longitudinal traction, and the osseous lesions receive either a general springing or rotation, without making a fixed point at or near lesion.

It is obvious that the latter are more general than those classified as general, though there is some chance of their being direct or specific in effect. This element of chance is so marked where sudden rotation is given that it is not a high grade of Osteopathic technique.

D. DIRECT.

In this class of treatments **hand one** acts as a fulcrum in treating osseous lesions by making a fixed point at or near lesion. A moderate degree of pressure is applied and treatments are given specifically, as a rule.

By their use there is less risk of injury than with the extreme. On the other hand, to get results may require one more effective, or an extreme treatment. In both the direct and extreme treatments nearly all, except acute cases, will get along best with two a week, and every few months a vacation of a few weeks, diminishing the length of term of treatment and increasing the length of vacations.

E. EXTREME.

This class of treatment should be used sparingly and only when diagnosis is positively correct.

It is a rare thing that a muscular treatment of this class will not reduce malarial or typhoid fevers three or more degrees the first treatment, if the fevers are of but a few days' standing. It is applied to osseous

lesions when other methods or practitioners fail, or in critical cases when the right thing must be done immediately. A writer has said, "There is always a place for a person who will assume responsibility." This is the class of treatments for these people.

As a rule, the extreme treatments are not the "follow-up" kind. One jolt at an osseus lesion is often enough at a treatment. In contrast to the repetition of a manipulation requiring more gentle touch, as in most of the general treatments.

THE "FLYING WEDGE" SERIES.

This is a division of the extreme treatment that is especially effective. To quote a student's answer to an examination question regarding it, "It is method of reducing a lesion at one operation." This was originally applied to the middle and lower dorsal region. It was called a "flying wedge" after the old-time formation in football, when the wedge-shaped formation of the eleven carried everything in front of it. Likewise the treatment and its effect on the lesion.

These now cover about a dozen treatments from the third rib to the sacrum.

Their principles are very much alike, and are as follows: When the elbow is grasped, it is held, not for leverage, but for pushing the shoulder backward, therefore it should be held straight in front of body, not folded, "like a chicken's wing."

The operator's axilla often grasps the patient's opposite shoulder for the purpose of carrying the trunk back without rotation when reducing posterior conditions.

Patient is inclined toward operator, so that patient's weight aids by allowing operator to apply pressure obliquely from beneath.

The characteristic position of operator's **lesion side** or **side one** (the side corresponding to the hand at lesion) is that the **thenar eminence** is in firm contact with lesion. The operator bends forward at **hips**, so as to rest **elbow** on operator's **thigh**, near **knee**, with **heel** on floor, or nearly so, steady pressure applied when the **action** takes place. The **heel** is raised, or the **knee swung in**, so that a sudden jolt is given the lesion already on a tension, striking lesion from below obliquely upward as patient's body is inclined backward. This is most effective if patient is taken un-awares; sometimes by following up with an extra jolt, or **two**, if first produces no movement, will produce the desired result.

Unless the operator takes the precaution to keep his or her spine straight and to use the ankle movement or the swinging in of the knee, the work will be unnecessarily wrenching and tiresome to the operator.

MECHANICAL AIDS

In this method of naming treatments according to their mechanical principles, some of the simpler ones were found to be almost without principle, while some of the more complex required more hands or supports than an operator might have.

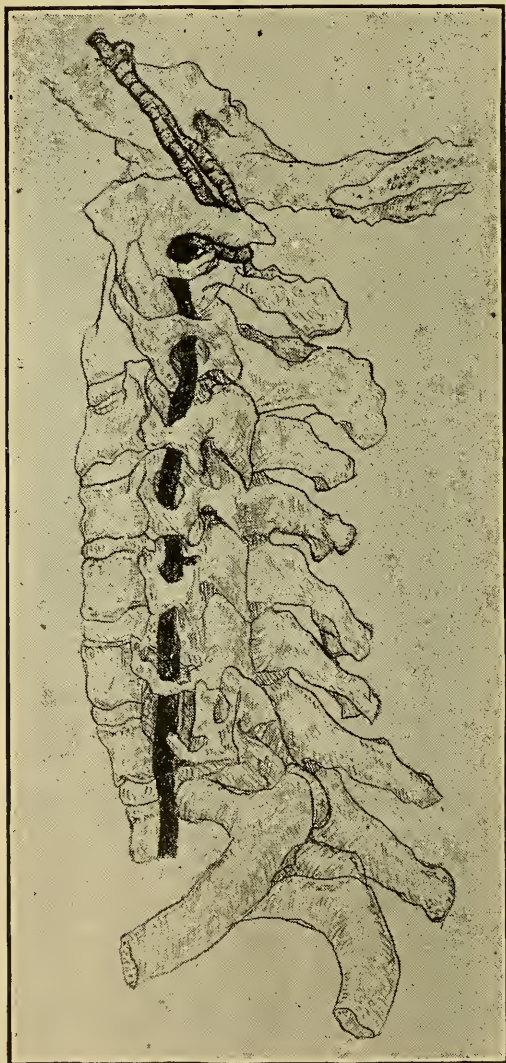
Realizing that the direct and extreme treatments, though effective, are hard on the operator, and that there is a tendency in some to either slight a patient or resort to a questionable adjunct to save strength or increase results, also that gravity is one of the important factors in producing lesions, there has been an effort to act on the McConnel & Teal idea of making your weight and the patient's weight count for energy expended. This means using gravity, the force that aids in producing lesions, to aid in correcting them. Other forces and conditions entering into the production of lesions, properly used, should be made to aid in correcting them.

Motion, wrenching, twisting, jolting, muscular traction, direct pressure, leverage, etc., all play their part in producing as well as reducing the lesions.

In order that more of these principles may be brought to bear, the Osteopathic swing is introduced in a score or so of treatments, it being used as a support in using muscular traction, gravity, motion and increased leverage.

Transverse Articular and Spinus Processes.

1st Rib.



2nd Rib

1st Dorsal

7th Cerv.

Axis-Atlas.

Showing prominent cervical spines also the transverse processes lying anterior to the articular processes and perforated by the vertebral artery. Notice the depth of the two latter processes. The lamina lie half way between the superior articular processes and the spinous processes. NOTE. Illustrations of Osteopathic landmarks are explained on their opposite pages.

THE NECK

OSTEOPATHIC LANDMARKS OF NECK.

1. **ATLAS.** Spinous process is scarcely felt. Transverse process, or lateral mass is felt between mastoid process and angle of inferior maxillary; also felt from below upward one-half inch laterally beyond the axis.

2. **AXIS.** Spinous process is usually long to support ligament nuchae, therefore its neighboring spinous processes are short, leaving the **FIRST**, **THIRD** and **Fourth** scarcely felt.

3. **FIFTH.** Spinous Process is the next one felt posteriorly, the **SIXTH** is more prominent, while the **SEVENTH** is the most prominent of the **Cervical vertebrae**, though **FIRST DORSAL** is even more prominent

4. **SIXTH.** Transverse process is extra long.

5. **THE CERVICAL AS A WHOLE HAVE:**

(a) **Articular processes** lying less than one inch to side of spinous process.

(b) **Articular processes** are at an angle of from 30 to 50 degrees from spinous process.

(c) Prominence of the **lamina** is one-half way between the superior articular and the spinous processes.

DIFFERENTIAL DIAGNOSIS BY MOTION.

SPINOUS PROCESS OF AXIS.

1. **Approximates** head as head is flexed backward.
2. **Remains stationary** as head rotates, while **Atlas** is turned with head.

SEVENTH CERVICAL.

1. **Rotates** while **FIRST DORSAL** is **stationary**.

DIAGNOSIS BY RESTRICTED MOTION.

If head will not flex backward the **Atlas** is at fault or posterior.

If head will not rotate from side to side equally the **Axis** is at fault.

If head will not flex to side, both the **Atlas** and **Axis** are at fault or lateral.

If head rotates, so that chin does not travel in a horizontal plane, the **Axis** and the **Cervical Vertebrae** below it are at fault, causing the axis of rotation to be at an incline instead of vertical. A marked cervical curve would cause it.

FOUR METHODS OF EXAMINATION.

A. Spinous processes method.

1. Its prominence or lateral deviations.
2. Tenderness on deep pressure.
3. Contractured or congested muscles in region.
4. Disturbed function of joint.
5. Symptoms.

B. Lamina.

1. Prominence felt as the rounded half of a split lead pencil.

2. Tenderness over this elevation.
3. Contractured or congested muscles.
4. Disturbed function of joint.
5. Symptoms.

C. Articular Processes.

1. Prominence felt as a nodule at posterior or lateral aspect.
2. Tenderness of same.
3. Softened or congested ligaments and other tissues.
4. Muscular contractions.
5. Disturbed function of joint.
6. Symptoms.

D. Muscular Contractions.

1. Run from above downward, often obliquely to cervical bony lesions, also from below upward as in the scaleni.
2. Are tender on pressure.
3. Becomes tendinous, about the size of a rounded half of a split lead pencil, then disappear near lesion.

CERVICAL,

DORSAL

AND LUMBAR VERTEBRA



Their Superior Articular Facets face upward,

backward

and inward respectively

THE SPINE

OSTEOPATHIC LANDMARKS OF THE SPINE.

The **SPINOUS PROCESSES** of the **DORSAL VERTEBRAE** are long bayonet-shaped levers directed obliquely downward with tubercular extremity. The region of greatest obliquity is from the fifth to the eighth, the tips being about three-quarters of an inch lower in relation to the bodies, transverse processes, ribs, etc., and about one-quarter of an inch flatter or deeper in relation to transverse processes and surrounding structures. This scale-like formation of the spinous processes increases the rigidity and with the articular surfaces lessen the liability to antero-posterior deviations. On account of their length, muscular traction increases liability to lateral deviation.

The **REGION of Normal Separation of Spinous Processes** is just above the fifth, and the **Region of Normal Approximation** is just below the eighth, because of the drifting downward of the mass of spines above the ninth and the more horizontal position of those above the fifth and below the eighth.

The **Cervical Spines** are irregularly bifid, hence are less valuable in diagnosis.

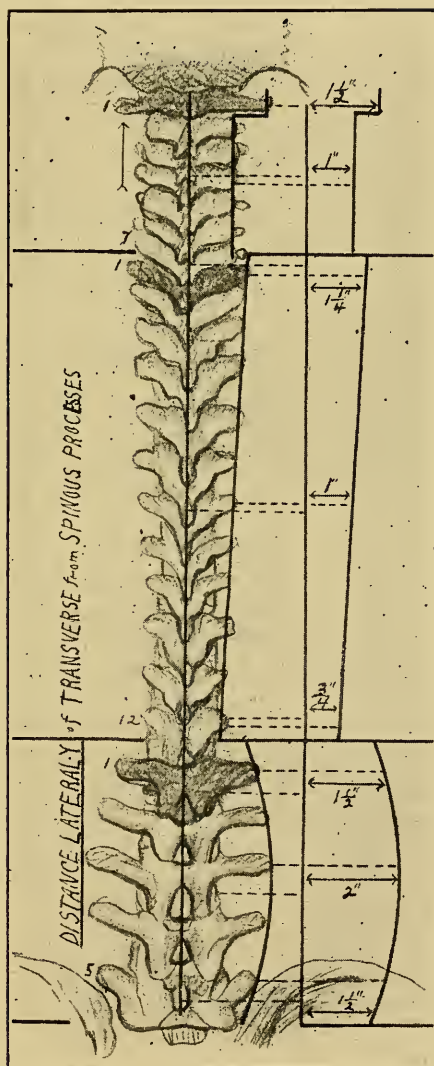
The **SPINOUS PROCESSES** of the **LUMBAR VERTEBRAE** are clubbed and horizontal and present a rough, flatiron-shaped surface with the apex up. The length of these surfaces is greater than the

spaces between them, and they are equal to several times the area of the dorsal spines.

The apex of the lumbar spines lies in the center of the four articular processes; the **First** is sometimes bifid and therefore much wider than the **Twelfth Dorsal**. (Illustrated.)

THE TRANSVERSE PROCESSES. (ILLUSTRATED.)

A. DISTANCE FROM MEDIAN LINE. As a rule they are about one inch to the side, with the following exceptions: At the **First Dorsal** they are one-quarter of an inch more, and at the **Twelfth** are one-quarter of an inch less, i. e., they are in a line drawn between these points or one and one-quarter inches at **First Dorsal** and three-quarters of an inch at **Twelfth Dorsal**. In comparison the **Cervical Transverse Processes** lie one inch lateral, except the **Atlas**, which is one-half inch more. Thus the Transverse process of the **Atlas** and the transverse processes of the **First and Fifth Lumbar Vertebrae** are one and one-half inches from the median line, while the **Middle Lumbar** region is two inches distant.

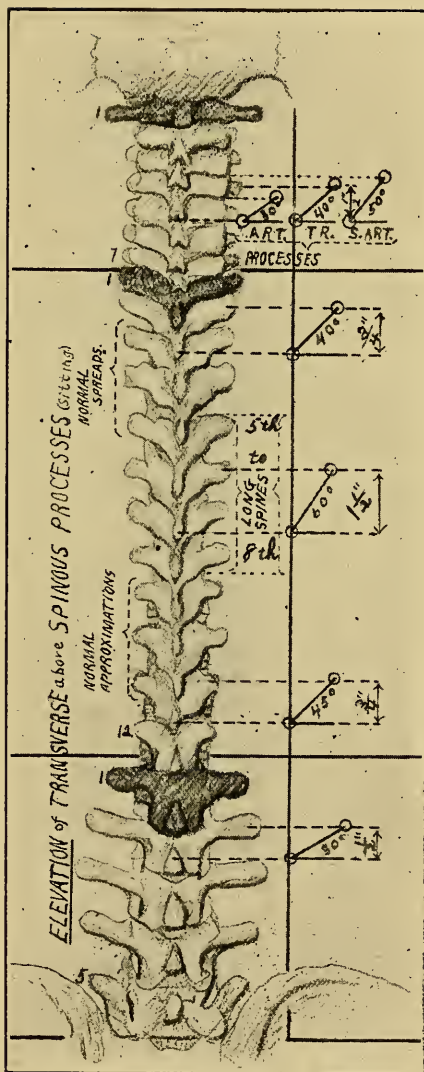


B. HEIGHT and ANGLE from tips of the **Spinous Processes** (patient sitting). In the **Upper and Lower Dorsal Region**, the transverse processes lie about three-quarters of an inch higher than tips of spinous processes and at an angle of about 45 degrees. From the fifth to the eighth about one and one-half inches higher and at an angle of about 60 degrees.

In the **Cervical** region the **Transverse Processes** lie about three-quarters of an inch higher and at an angle of about 40 degrees, though they lie more to the front of the articular processes, which are of more diagnostic value.

The **Articular processes** lie just above and below the transverse process and about one-quarter of an inch or 10 degrees, making the superior articular processes lie at an angle of 50 degrees and the inferior at an angle of 30 degrees from spinous processes.

In the **Lumbar** region the **Transverse Processes** lie about one-half inch higher than the highest tip of the flatirion surface of spinous process, or at an angle of less than 30 degrees, and in line with the **Articular Processes**, which are about half-way between the transverse and spinous processes.



C. DEPTH OF TRANSVERSE PROCESSES BELOW THE TIPS OF SPINOUS PROCESSES

(Patient Prone).

In **Upper and Lower Dorsal Region** they lie one-half inch deep and one-quarter inch deep from fifth to eighth.

In **Lumbar Region** three-quarters of an inch above, deepening to one and one-half inches below.

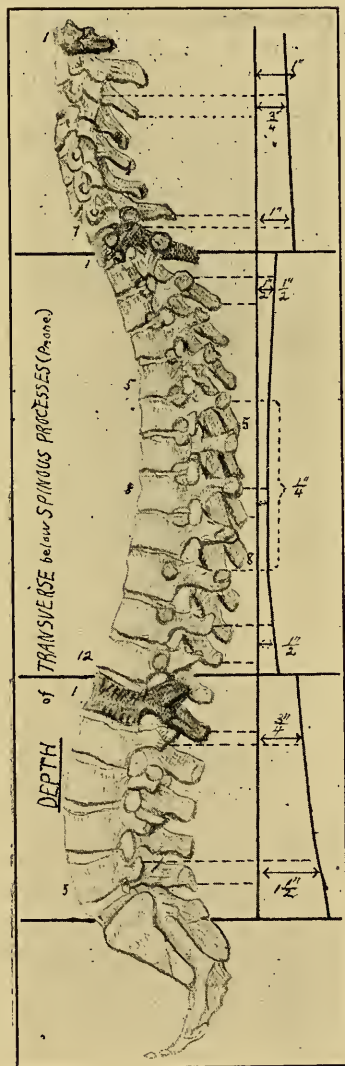
In **Cervical Region** they lie anterior to the articular processes, and the cervical articular processes are about three-quarters of an inch deep above and one inch below, not counting the axis.

THE ARTICULAR PROCESSES.

In the **Dorsal** region the articular surfaces lie one-half inch away from median line. The inner border of the same lie about three-eighths of an inch apart or three-sixteenths of an inch from the median line in the same plane and facing backward, making lateral slips the most liable.

In the **Cervical** region they face upward and backward, making slips in all directions easy.

In the **Lumbar** region they lie between the spinous process and the transverse process and about equi-distant from apex of each.



OSTEOPATHIC EXAMINATIONS OF SPINE. GENERAL CONTOUR.

Patient sitting or lying on side, with head raised to normal position.

1. Look for lateral swerves, curves and angles by tracing with index finger of same hand at either side of spinous processes.

2. Look for anterior or posterior swerves, curves and angles; and for absence of normal curves or straightness by tracing fingers over spinous processes; or by direct friction.

3. Either abnormal rigidity or lax ligaments may be found by springing spine laterally or anteriorly.

4. Contractured muscles may aid in causing the rigidity of the trunk. If generally contractured, they may also mask bony lesions, making complete diagnosis impossible until relaxed by treatment.

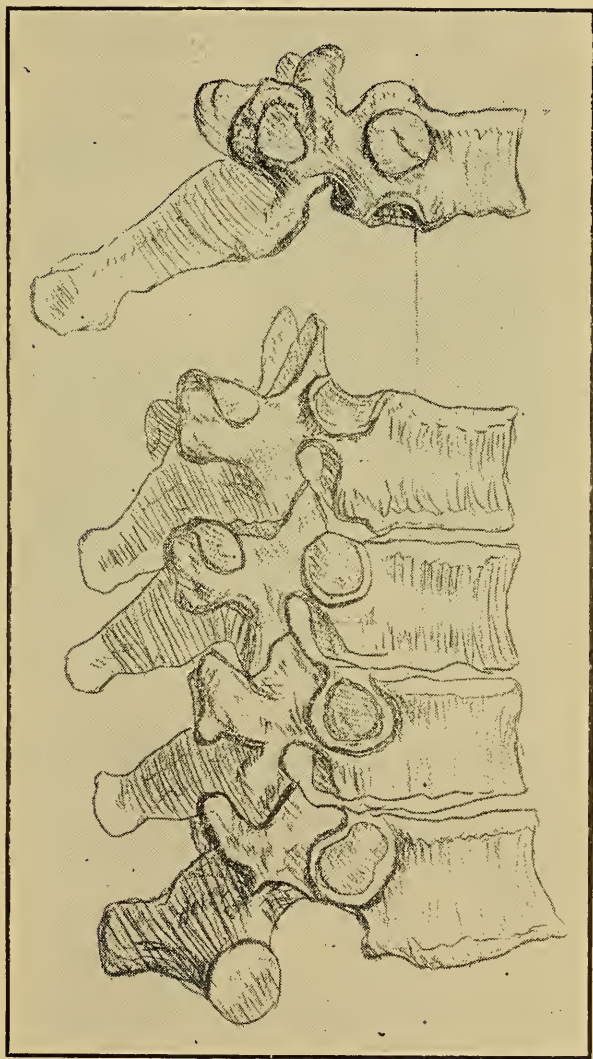
BONY LESIONS.

1. Note **Anterior** and **Posterior** slips and steps, found by finger tips gliding longitudinally across spinous processes over or under garment, or by two or three rapid rubs directly over spines to cause redness of prominences.

2. **Lateral Slips** are found by tracing two fingers laterally or one finger reinforced from above downward, remembering the entire width of spines.

3. **Spreads** and **Approximations** are normal in places. The abnormal having tenderness on direct pressure with fingers at right angles to spine.

Notice the Facets. The four lower Dorsal can affect only one pair of ribs each. The upper eight may affect two pairs



First,

Ninth,

Tenth,

Eleventh and Twelfth Dorsal

A. TRACING FROM BONY TO MUSCULAR LESIONS.

1. POSITION:

a. Of **Spinous processes**: Allow for its size and distortion from muscular traction.

b. Confirm by prominence of **Transverse processes** which are prominent and tender on side away from lateral deviation.

c. There is likely to be a disturbance of the **adjoining ribs**. The rib is most likely to be carried with the transverse process.

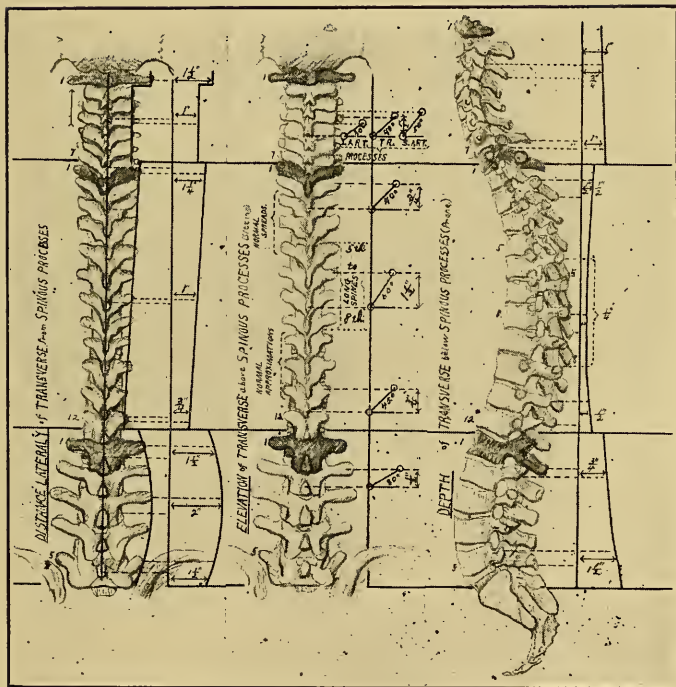
2. TENDERNESS:

a. **Spinous Process**: (1) on tip with deep pressure; (2) on side from above downward, with fingers reinforced with lateral pressure downward; (3) interspinous ligaments.

b. **Transverse Process**—tenderness on one most prominent at insertion of muscles.

c. **Articular Processes**.

3. **CONTRACTURED MUSCLES**: Leading to **Transverse process** from below upward, in **Dorsal** and **Lateral Cervical** region and from occiput downward in **Posterior Cervical Region**, narrow and conical in shape and tender.



B. TRACING FROM MUSCULAR TO BONY LESIONS.

1. MUSCLES:

- a. Find **Contractured Muscle**.
- b. Trace up its **Tendon**, which feels like rounded side of a split lead pencil, feeling transversely.
- c. Begin feeling vertically to find a tubercle marking **Transverse Process** beyond where muscle outline is lost.

2. TENDERNESS is found in

- a. The **Muscle** along its course.
- b. At **Bony Points** mentioned under A just preceding.

3. BONY LESION:

- a. **Transverse Process** prominent or tender at insertion of muscular lesion.
- b. Drop diagonally down to find **Spinous Process** and note position. **Note:** If a lateral swerve, look for a mass of contractured muscles on convexity.

4. DISTURBED FUNCTION.

LYING POSTURE.

Patient may be supported on **treating table**, **bed** or **couch** or **table** with **swing**. If **bed** or **couch** is used, head may be at foot, or if **bed** is used, patient may lie diagonally across, or lie directly across, permitting operator to treat from opposite side.

SITTING POSTURE.

Patient may be supported on **table**, **high** or **low**

stool or **chair**. With chair back at either side of patient, or seated on **stool**, with body inclined forward with folded arms or axillae in **swing**.

KNEELING POSTURE.

Is given with **swing** when patient is taller than operator or when **swing** supports cubital fossa instead of axillae for additional leverage.

STANDING POSTURE.

Patient may stand with **swing** supporting axillae and with straps parallel, crossed or suspended from one hook. The further they are crossed the greater the muscular traction when circling patient.

THE RIBS

OSTEOPATHIC LANDMARKS OF THE RIBS.

NORMALLY THE CROSS SECTIONS OF THE SEVENTH RIBS ARE AS FOLLOWS:

AT TRANSVERSE PROCESS:

One-half inch external to it, the cross section of a rib is at the **same level**.

AT ANGLES:

A cross section lies **one inch lower** than the transverse process.

AT MID AXILLARY LINE:

A cross section lies **two inches lower** than at the transverse process.

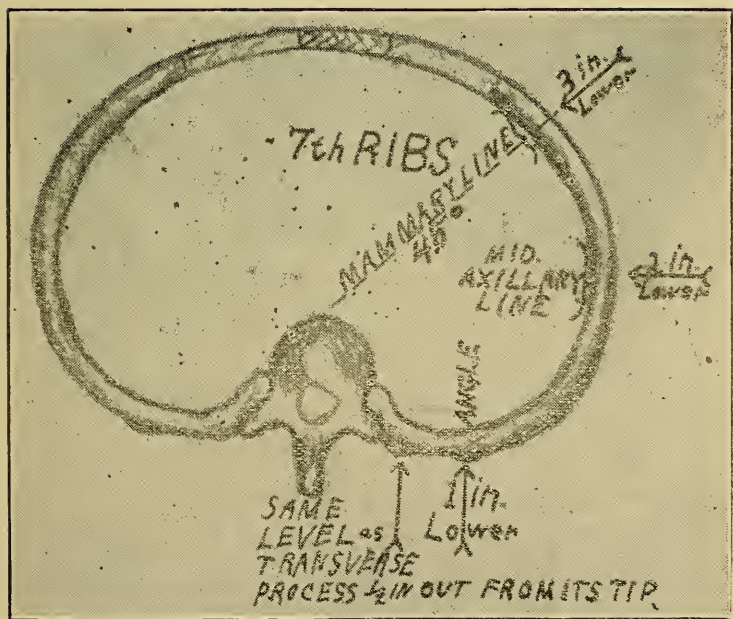
AT THE MAMMARY LINE (The lowest point):

Or a line drawn vertically half-way between the mid axillary line and mid sternal line. A cross section lies **three inches lower** than at transverse process. **Note:** The **slant of ribs** is proportionally greater in ribs below the seventh and proportionally less above the seventh.

THE COSTO CHONDRAL LINE OF DIAGNOSTIC TENDERNESS.

This extends from a point one-half inch external to the sternum, or **tip of second rib**, to the **tip of ninth rib**.

Gliding across it with pressure is a quick aid in locating the tenderness of ribs **when they are inaccessible** at interscapular region.



Illustrating height of Ribs at varying distances from tip of transverse processes

A LUXATED TYPICAL RIB.

IF UPPER BORDER IS PROMINENT LATERALLY:

The Anterior End is up.

The Treatment at Angle should be forcing it upward in addition to forcing it forward, etc.

The rib having been luxated on the see-saw principle; one end going up and the other going down.

Remember the Key: Three Ups, i. e., Upper border prominent, anterior end, Up and treatment at angle Upward.

IF LOWER BORDER IS PROMINENT LATERALLY:

The Anterior End is low.

The Treatment at Angle should be forcing it downward in addition to forcing it forward, etc.

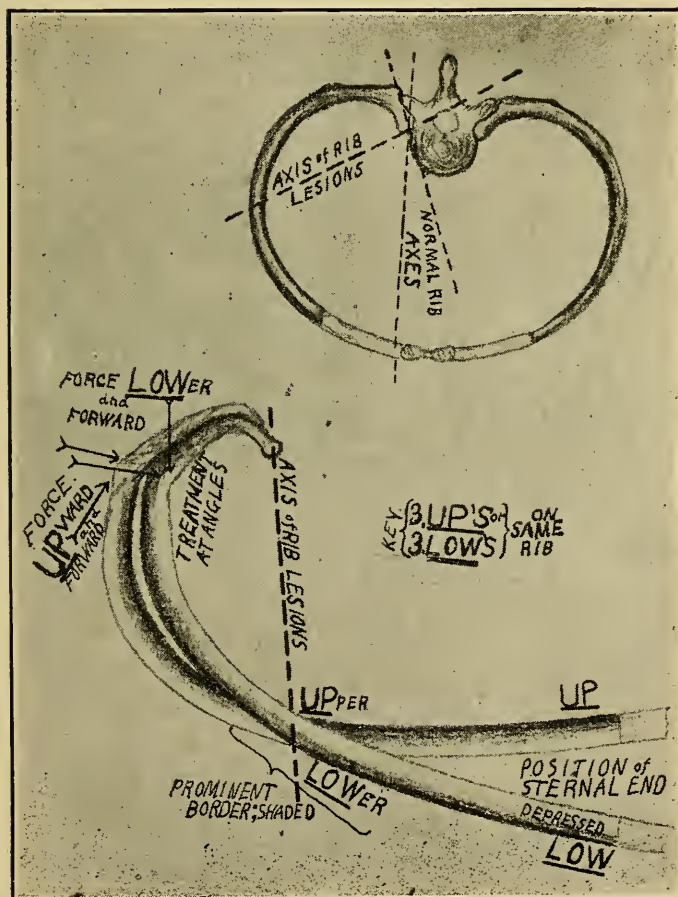
This latter condition would represent the see-saw tilted the reverse of the former.

Remember the Key: Three Lows, i. e., Lower border is prominent, anterior end is Low, treatment at angle is to Lower the rib. This is the most common form, owing to the rib being supported slightly above the costo transverse articulation, it easily glides upward and backward.

In the latter case, the lower border, and, in fact, the entire rib is less prominent than in cases when upper border is prominent. The first, eleventh and twelfth ribs do not come under the above rules.

ILLUSTRATING THE KEY TO RIB LESIONS

(Exaggerated)



The RIBS representing a see-saw - tilted

The AXIS OF RIB LESIONS representing the fulcrum - stationary

THE FIRST RIB.

In the first illustration. Suppose the neck to be octagonal instead of round. Find the postro-lateral side, or aspect. Locate a point midway of this side.

In the second illustration. Suppose the shoulder to be horizontal and the neck vertical. Bisect this angle or find the point one-half way between the vertical and the horizontal line.

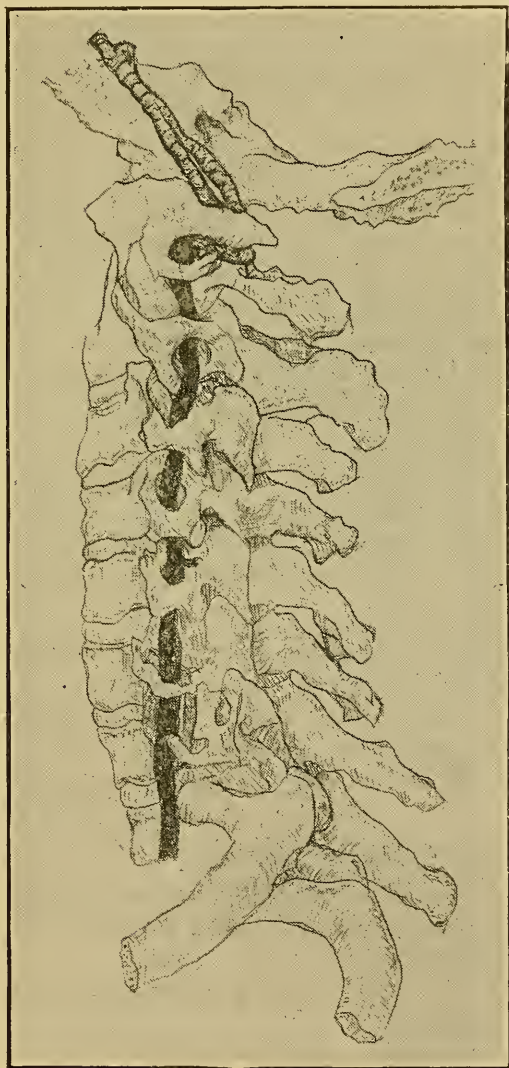
Th'rd. Travel around the neck toward the posterior surface until you come to the middle of the line first located, or a point at the postro-lateral aspect.

The result is the finding of a portion external to the transverse process of the first dorsal vertebrae and the tubercle of the first rib. This is a **diagnostic point of tenderness** of the first rib. It is also the **point for greatest pressure** in reducing subluxations of the same. In other words, it is the point one-half way between anterior and posterior and between vertical and horizontal.

This is best palpated with patient sitting, operator at back, using index, middle and ring fingers.

You may find **tenderness, elevation or depression** of rib at **sternal end** and **middle**, or below and above **clavical** as well as at **tubercle** above mentioned.

FIRST RIB AT THE VERTEBRAL END



Its Tubercle partially concealing the tip of Transverse Process

EXAMINATION OF RIBS.

FOR SINGLE SUBLUXATIONS.

(A) TRACING FROM SPINE TO RIBS:

Examination in Detail.

1. AT SPINE:

(a) At a transverse process of a luxated vertebrae expect a rib to be carried with it, or to be thrown above or below its articulation with the transverse process. If so, the rib will be carried anteriorly in the former instance and posteriorly in the latter, that is, slightly between the transverse processes.

(b) Perhaps tenderness only is found.

2. AT NECK:

(a) If posterior the neck is felt as the rounded half of a split lead pencil.

(b) Tenderness is found at this point. **Note:** This is the spot for extreme pressure in treating.

3. AT ANGLE:

(a) Trace to angle, or about three inches out, and note the vertical spacing of the ribs.

(b) Tenderness is more noticeable at approximations—because tissues are pinched.

(c) Expect rotation of rib on its longitudinal axis.

4. AT LATERAL ASPECT:

(a) Find prominence of a border of a rib, which furnishes key to position and treatment of rib elsewhere explained.

(b) The other border is displaced inward.

(C) Tenderness:

(1) On deep pressure over rib.

- (2) At intercostal spaces.
- (3) Approximations most tender.

5. AT STERNAL END:

(a) **Prominence or depression:** if rib is displaced backward at vertebral end, it is depressed at sternal end.

(b) **Tenderness** at costo-chondral articulation.

(c) **Distortion of costal cartilage;** often found with superior border bulging like an old coat pocket, if sternal end of rib is depressed.

THE ELEVENTH AND TWELFTH RIBS.

Compare these ribs to a crescent with one end, the head, attached, the other end free. The **ANTERIOR END** would have the greater range of displacement.

First. It may **Rotate** either way on an axis corresponding with posterior half, usually throwing its anterior end upward and inward, or downward and outward.

Second. It may **Swing Up or Down About the Head as a Center.**

Third. They may be **Carried Obliquely** downward with the head dislocated upward.

Fourth. Combination of the above may exist.

Fifth. May **Drop** downward, both ends being carried nearly parallel.

EXAMINATION OF THE ELEVENTH AND TWELFTH RIBS.

1. **Tenderness of Ribs:** On pressure or motion.
 - (a) At vertebral end.
 - (b) At free end.
 - (c) At middle.
2. **Prominence or Depression:**
 - (a) Of borders.
 - (b) Vertebral end.
 - (c) Free end.

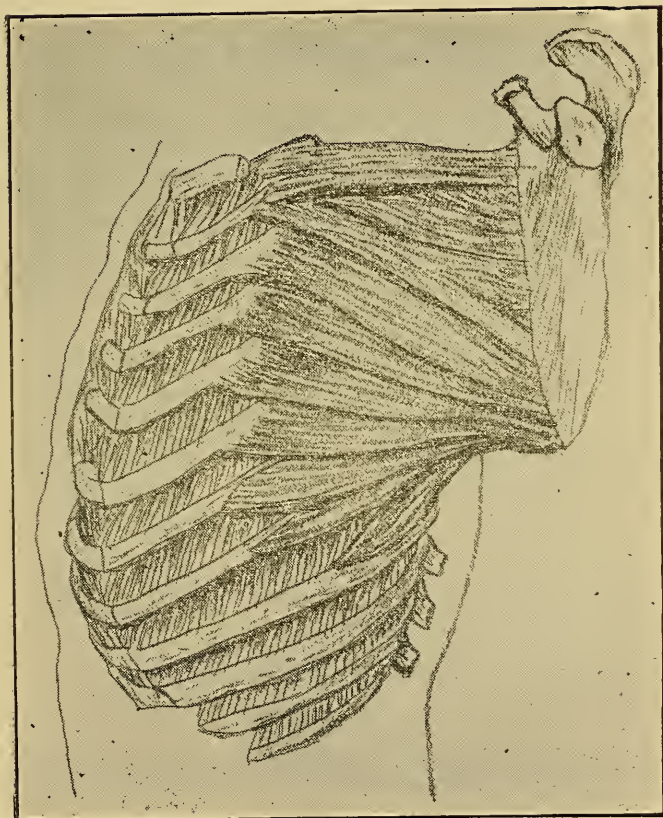
Intercostal Spaces:

- (a) Size.
- (b) Tenderness.
- (c) Possibly ribs overlapped.

EXTRAORDINARY MEANS OF LOCATING TENDERNESS OF RIB LESIONS.

Note: Often approximations protect intercostal nerves and tissues, so that the fingers bridge the intercostal space without locating the tenderness. It is then necessary to use the following means:

1. **Use side of tip of index finger**, reinforced by remaining fingers of same hand.
2. **Give pressure during deep respiration.** Fingers lying in intercostal spaces and parallel with them in both instances.
3. **During colds or acute attacks.**
4. **At monthly periods.**



Showing Slope of Ribs and Normal Throat. Scapula drawn outward

INNOMINATES

EXAMINATION OF INNOMINATES.

TENDERNESS IS FOUND ABNORMALLY AT:

1. **Sacro-iliac articulation**, also just above it at **illio-lumbar ligament**.
2. **Crest of ilium**; muscles above at origin; lymphatics at its posterior extremity.
3. Below **anterior superior spine**; exterior cutaneous nerve.
4. Affected side of pubis and at **symplysis**.
5. Contractured muscles **internal** to **ischium**, or side of pelvic floor.

PROMINENCE OR DEPRESSION.

1. Of posterior superior spine.
2. Crest of ilium; elevation.
3. Anterior superior spine.
4. Symphyses of pubis, mismatch.

CONTRACTURES.

1. At sacro-iliac articulation.
2. At crest of ilium.
3. Interval to ischium.
4. In rectum on affected side.

DISTURBED FUNCTION.

1. Of hip.
2. Of limb.
3. Of pelvic organs.

EFFECT ON SURROUNDING STRICTURES.

1. **Lumbar curves**; sometimes formed.
2. Vertical **straightening** at waist line.
3. Variation in **length of limb**; frequent.
4. **Wedge** **sacrum**; possible with pair slipped.
5. **Anterior coccyx**; indirectly with pair slipped posteriorly.

TECHNIQUE

THE NECK

GENERAL RELAXING

Is given for contractures and as a preparation for specific work in removing bony lesions. Do not allow fingers to slip on skin or clothing or to dig into flesh. Carry muscles as if they were a thick mitten on the hand.

M. MUSCULAR TREATMENT.

N. NECK (REGION).

P. POSTERIOR (ASPECT).

(M. N. P.) 1. BILATERAL STRETCHING WITH WEIGHT OF HEAD OPPOSING. (Illustrated.)

NOTE.—This is best accomplished where table is low enough so that Operator's arms hang about straight when treating, and without stooping.

POSTURE—Patient supine; Operator at head.

POSITION—Finger tips of both hands at ligament neuque. Patient's head may rest against Operator if table is high enough.

PRINCIPLE—A wedge is formed by the lamina and spinous processes, which aids the lateral stretching of the muscles.

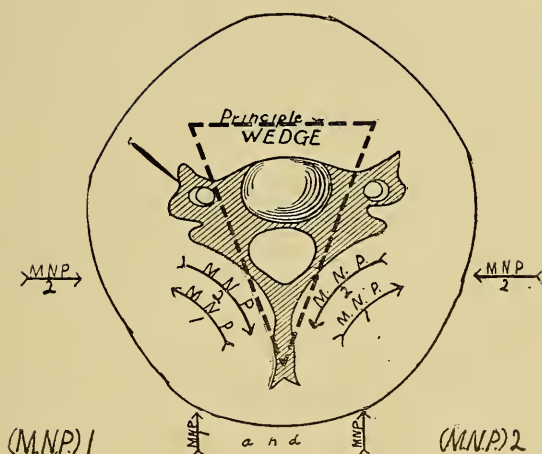
ACTION—(a) Lift upward and outward carrying mass of muscles away from spine.

(b) Grasp hands full, including the lateral and raise and lower.

(c) Swing from side to side with or without head.

(d) Circle, keeping head fixed against Operator stationary, or nearly so.

Use either of the above, not all of them.



(M. N. P.) 1. MODIFIED.

Used when patient is too ill to move.

POSTURE—Patient supine at side of bed. Operator at side facing head.

POSITION—Same as (M. N. P.) 1, preceding.

ACTION—(a) Lift upward and outward as in (a) preceding.

(b) Continue on out at root of neck stretching muscles at right angles to trapezius border.

(M. N. P.) 2. **LATERAL STRETCHING WITH HANDS CLASPED ON LESION.** (Illustrated).

USE—An extreme treatment on bad contractures.

POSTURE—**Patient** sitting on stool or table.
Operator in front.

POSITION—**Operator's hands** clasped back of patient's neck with **heel of hands** grasping posterior group of muscles.

ACTION—**Force wrists** together and bring pressure on muscles.

PRINCIPLE—About the same as a nut cracker or a pair of second-class levers; except grip of hands causes most of pressure. The muscles are forced toward the median line. The cervical lamina and spinous processes acting as a wedge to force them posterior, thus giving lateral stretching of muscles.

(M. N. P.) 3. **LATERAL STRETCHING WITH HEAD LEVERAGE AND ROTATION.**

USE—For medium or mild relaxing.

POSTURE—**Patient** supine. **Operator** at side.

POSITION—**Hand one** reaches across throat and around to posterior muscles of opposite side with **finger tips** at ligamentum nuchae. **Hand two** on patient's forehead.

ACTION—(a) **Hand two** rotates head from **Operator** as (b). **Hand one** endeavors to drag mass of muscles away from spine or slide them around anteriorly.

NOTE—For one more effective, see (M. N. C.) 1.

CAUTION—Keep **thumb** well back on **hand one** to avoid striking chin.

(M. N. P.) 3 MODIFIED.

POSTURE—**Patient** sitting on table, chair or stool. **Operator** in front and to opposite side.

POSITION of **Hands** is the same.

ACTION—The same, i. e., **Hand one** carries muscles anteriorly as **Hand two** opposes with rotation.

CAUTION—Stand at least one-half way around **Patient** from the lesion to retain grip on muscles.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

1st letter the **Structure**, 2d for **Region**, and 3d, **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	14
3 or, c	12
4 or, d	13
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

M. MUSCULAR TREATMENT.

N. THE NECK.

L. LATERAL ASPECT.

(M. N. L. 1. LATERAL STRETCHING OF STERNO-MASTOID WITH HEAD LEVERAGE AND ROTATION.

POSTURE—Patient supine. Operator at side.

POSITION—Hand one grasps muscles, ith hand two on forehead.

ACTION—Carry muscles anteriorly and rotate head in opposition similar to (M. N. P.) 3 or Lateral stretching with head leverage and rotation.

(M. N. L.) 2.—LONGITUDINAL TRACTION OF SCALENI MUSCLES WITH HEAD LEVERAGE AND ROTARY OSCILLATION.

POSTURE—Patient supine. Operator at side facing head.

POSITION—Fingers or heel of hand one passes behind clavical at root of neck on opposite side to hold down first and second ribs.

ACTION—(1) Hand two forces head to same side; (2) Hand one holds ribs down firmly; (3) Hand two forces head to opposite side; (4) Oscillate head with hand two.

(M. N. L.) 2. MODIFIED. SITTING.

POSTURE—**Patient** sitting. **Operator** at back.

POSITION—The same, except if on low stool **thenar eminence of hand one** is used.

NOTE—POSTURE, POSITION and the reversed order of ACTION, or c, b, a are similar to R. U. D. 2 or head and neck leverage for muscular traction with **thenar eminence** and operator's weight at lesion.

(M. N. L.) 3. LATERAL STRETCHING AT UPPER BORDER OF TRAPESIUS.

USE—At root of neck.

POSTURE—**Patient** sitting on high stool or table. **Operator** at back.

POSITION—Fingers of **both hands** rest on superior border of **Trapezius** at root of neck.

ACTION—Stretch downward carrying muscles beneath diagonally downward toward 12th dorsal vertebrae. This may be continued out toward shoulder.

NOTE—The stretching in the opposite direction of (M. N. P.) 1 Modified. The second treatment in book.

(M. N. L.) 3. MODIFIED. HAND REINFORCED.

USE—Greater efficiency than (M. N. L.) 3 preceding. A very restful treatment for the Operator.

POSITION and ACTION same except **hand one** is reinforced by **hand two** overlapping with fingers crossing at less than right angles.

1st letter 'the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

M. MUSCLES.**N. NECK.****A. ANTERIOR.****(M. N. A.) 1. LATERAL STRETCHING WITH HEAD FIXED.**

POSTURE—Patient supine. Operator at side.

POSITION—Finger one and thumb one grasp hyoid bone laterally. Hand two steadies head.

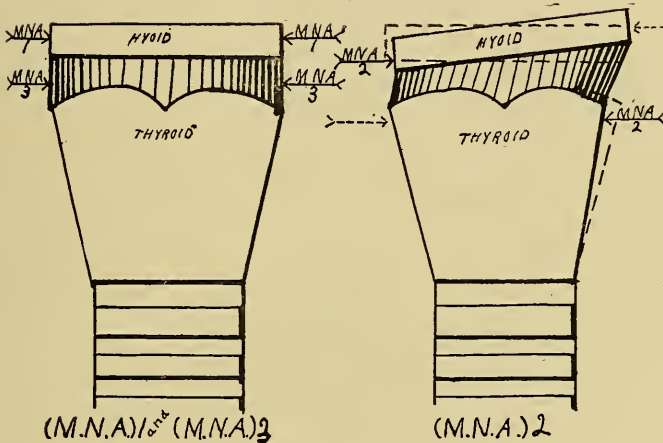
ACTION—(a) Swing from side to side, stretching supra and infra hyoid muscles.

(M. N. A.) 1. MODIFIED.

USE—From angle of inferior maxillary to clavicle.

POSITION—Middle finger one at side of hyoid. Thumb one rests on angle of jaw. Hand two on forehead or not.

ACTION—(a) Finger one carries bone laterally and thumb two aids by gripping or opposing at angle. (b) Thumb one may carry bone as all fingers rest on chest. (c) Hand two may rotate head in opposition.



(M. N. A.) 2.—THYRO-HYOID AND INFRA-HY-
OID MUSCLES. . (Illustrated.)

USE—Relaxing relieves pressure on superior laryngeal artery, vein and nerve as they enter the larynx. Hypersensativeness indicates inflammation.

POSTURE—Patient supine. Operator at side.

POSITION—Thumb one at lateral aspect of hyoid bone. Middle finger one on opposite side of thyroid cartilage.

Action—1st. Aim to force hyoid oneway and thyroid the opposite. 2d. Force them the reverse direction.

(M. N. A.) 2. MODIFIED.

USE and POSTURE same.

POSITION—Grasp larynx laterally by placing **finger one** and **thumb one** between hyoid bone and thyroid cartilage so as to touch each.

ACTION—Pinch or wedge them apart.

STERNO MASTOID MUSCLE.

NOTE—Direct pressure above sternal origin reveals inflammation of lower trachea, as does pressure over sterno hyoid. Thumb or finger pressing above sternal origin of the sterno mastoid muscle may reveal contracture, obstructing venus return from head and neck, and pointing to bony lesion at second or third cervical irritating its nerve supply.

(M. N. A.) 3. STERNO MASTOID MUSCLE.

Direct pressure above sternal origin may aid in reducing its contracted condition or, at least, aid in diagnosing the same.

(M. N. A.) 4. EXTREME LONGITUDINAL STRETCHING WITH FINGERS AT LESION.

USE—For quick relief in freeing venus return, as in tonsilitis and other acute trouble of this region. Also in stretching trachea and oesophagus.

POSTURE—**Patient** supine with head and neck extending beyond support. **Operator** at head.

POSITION—Fingers of **hand one** beneath ramus of inferior maxillary at one side of median line. **Hand two** supports back of head.

ACTION—Pull strongest with **hand one**, drawing neck and chin nearly into a straight line. Then repeat on opposite side.

CAUTION—Never stretch severely and rotate head at same time.

DEGREE—See modification.

(M. N. A.) 4. MODIFIED—THENAR EMINENCE AT LESION.

POSTURE—**Patient** supine with head and neck beyond table or bed. **Operator** at head facing the side.

POSITION—**Thumb** of **hand one** points at operator while **thenar eminence** of same engages soft parts beneath inferior maxillary at one side of median line.

ACTION—(a) Same as No. 1 just preceding, **thenar eminence** applies greatest traction at **hand two** supports head.

(b) Or patient throws head back until mouth opens and **hand one** closes it.

NOTE—The latter can be accomplished with patient sitting or standing.

DEGREE—For extreme cases pressure could be enough to slide a medium weight patient on a panta-sote surface. Considering strength of patient.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.
SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
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..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

C. COMBINED MUSCULAR AND BONE TREATMENT.

N. THE NECK OR CERVICAL REGION.

I. INDIRECT TREATMENT.

(C. N. I.) 1. EXAGGERATION, CIRCLING AND SCREWDRIVING ROTATION (Illustrated).

USE—As a deep, relaxing treatment.

POSTURE—**Patient** supine head level with body.
Operator at head.

POSITION—**Thumbs** together and **hands** at crown of head.

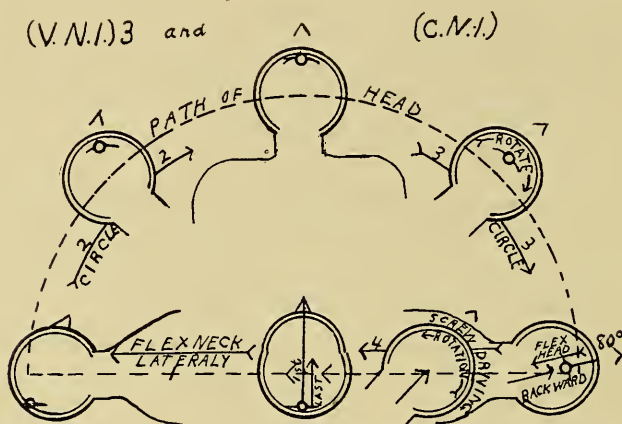
ACTION—(a) Carry to side to exaggerate lesion.

(b) Circle forward a quadrant holding all the tension you have gained.

(c) Simultaneous circle through second quadrant and rotate head ninety degrees, thus facing head from front to side on which lesion is prominent.

(d) Apply pressure at top of forehead, flexing it backward as head is rotated and carried back to first position with a screw-driving movement.

NOTE—Letters of diagram correspond with those under action.



1st letter the **Structure**, 2d for **Region**, and 3d **Class**.
SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

(C. N. I.) 2. POSTERIOR SPRINGING OF COLUMN AND MUSCLE STRETCHING.

USE—For anterior curves or preparatory treatment in individual anterior subluxations to be followed by attempts to force anterior the adjoining prominent vertebrae.

POSTURE—Patient supine. Operator at head

POSITION—Hands below crown of patient's head.

ACTION—(a) Raise head to bow cervical spine posteriorly.

(b) Oscillate, keeping the tension on muscles.

(c) Circle head in arc each way from median line retaining muscular tension.

(C. N. I.) 2. Modified WITH DEEP SUBOCCIPITAL PRESSURE.

USE—Relieving muscular pressure or tension in this region to make diagnosis and bony lesion treatment possible.

POSTURE and POSITION—Same as (C. N. I.) 2 just preceding.

ACTION—(a) Neck is bowed as in action (a), (C. N. I.) 2.

POSITION—Index finger one and thumb one at sub-occipital fossae and hand two on forehead.

ACTION—(b) Hand two forces head to flex backward and oscillate slightly, while finger one and thumb one work deeply into muscles.

C. COMBINED MUSCULAR AND VERTEBRAL TREATMENT.

N. THE NECK OR CERVICAL REGION.

D. DIRECT TREATMENT.

(C. N. D.) 1. LATERAL SPRINGING OF SPINE WITH ROTATION.

USE—One of the most effective.

POSTURE—**Patient** supine. **Operator** at head.

POSITION—**Hand one** reaches under neck and across to opposite side grasping contracted muscle. **Hand two** on forehead.

ACTION—(1st) **Hand one** carries muscles toward spine, or **Operator**, as **Hand two** rotates head from **Operator**.

(2d) **Hand one** continues in same direction carrying spinous processes beyond normal, thus springing the spine laterally.

(C. N. D.) 1 MODIFIED—SITTING.

USED—When inconvenient to lie down.

POSTURE—**Patient** sitting. **Operator** at side and in front. Diagonally opposite muscles treated.

POSITION of **hands** and ACTION the same.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

I	(.....)	2
USE		3
1st POSTURE Patient		4
.....Operator		5
2d		6
1st POSITION Hand one		7
.....Hand two		8
2d		9
ACTION		10
Consecutively. Simultaneously.....		
I or, a		11
2 or, b		12
3 or, c		13
4 or, d		14
PRINCIPLE.....acts as a ... class lever.....		15
..... acts as a fulcrum with.....		16
as the power and.....as the weight.....		17
DEGREE		18
.....		19
CAUTION		20
.....		21
NOTE		22
.....		23
.....		24

SPINE

M. MUSCULAR LESIONS.

U. UPPER DORSAL REGION.

G. GENERAL OR GENTLE TREATMENT.

(When indicating muscular treatment)

(M. U. G.) I. ROCKING HANDS LEVERAGE
WITH PATIENTS' WEIGHT OPPOSING.

USE—A mild treatment on table or for bed-fast patients. Also applied as low as fifth lumbar vertebrae.

POSTURE—**Patient** supine. **Operator** at side.

POSITION—Operator's **hands** over patient's shoulders.

Operator's **finger tips** at spinous processes, **metacarpal knuckles** on table.

NOTE.—In using this treatment below interscapular region reach directly from sides.

ACTION—(a) **Fingers** carrying mass of muscles up and away from spine by rocking movement.

(b) If in bed lift and pull out instead of rocking.
(Note: See second treatment following.)

(c) It can be given more forcibly by **reinforcing one hand** with the other.

PRINCIPLE—Knuckles act as fulcrum as hand is flex at right angles.

M. MUSCULAR LESIONS.**U. UPPER DORSAL REGION.****D. DIRECT TREATMENT.****(M. U. D.) I. SHOULDER GRIPPING AIDING THUMB AT LESION.**

POSTURE—**Patient** sitting. **Operator** at back.

NOTE.—If in bed have patient's back at side of bed, and supported with operator's thigh or knee.

POSITION—Tips of **thumbs** at spinous processes, **fingers** over shoulders.

ACTION—**Thumbs** carry muscles up and away from spine aided by a grasping movement of **hands**.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.
SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

M. MUSCULAR LESIONS.**U. UPPER DORSAL REGION.****E. EXTREME TREATMENT.**

(M. U. E.) 1. ROCKING HAND LEVERAGE, REINFORCED WITH PATIENT'S WEIGHT AIDING, OPPOSING. Same as (M. U. G.) 2, except one hand reinforces the other.

(M. U. E.) 2. SHOULDER GRIPPING WITH THUMBS REINFORCED AT LESION.

Same as (M. U. D.) 1, except thumb one is reinforced by the other thumb.

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

M. MUSCULAR LESIONS.

I. INTER-SCAPULAR REGION.

G. GENERAL OR GENTLE TREATMENT.

(M. I. G.) 1. REINFORCED HAND AT LESION WITH FIXED ELBOW AND SHOULDER LEVERAGE OPPOSING.

POSTURE—**Patient** on side. **Operator** in front.

POSITION—Fingers of **hand one** at spinous process, **hand two** reinforces **hand one**, elbow of patient against operator.

ACTION—**Hands** carry muscles up and away from spine as pressure on elbow opposes.

(M. I. G.) 2. ARM LEVERAGE WITH FINGERS AT LESION.

USE—For patients unable to turn in bed. Applied to lower dorsal and lumbar region by **hand two** shifting to anterior superior spine.

POSTURE—**Patient** supine. **Operator** at side facing head. **Operator's forearms** crossed.

POSITION—**Hand one** reaches beneath patient with finger tips at spine. **Operator's hand two** grasps arm at elbow.

ACTION.—**Hand one** pulls muscles laterally away from side as **hand two** circles elbow upward and backward opposing **hand one** by forcing arm and shoulder down.

M. MUSCULAR LESIONS.

I. INTER-SCAPULAR REGION.

D. DIRECT TREATMENT.

(M.I.D.) 1. ROTATING ARM LEVERAGE WITH INVERTED THUMB AT LE- SION.

POSTURE. **Patient** sitting. **Operator** at back.

POSITION. **Operator's thumb** points downward and engages muscles at opposite side of spine; **hand two** grasps arm two at elbow.

ACTION. **Thumb** carries muscles to opposite side, that is, away from side as **hand two** rotates arm in opposition, or toward operator. (From top of circle.)

(M.I.D.) 2. SHOULDER LEVERAGE, with IN- VERTED THUMB at LESION.

Same as (M.I.D.1) except:

Position. **Hand one** grasps shoulder from above or below.

M. MUSCULAR LESIONS.

I. INTER-SCAPULAR REGION.

E. EXTREME TREATMENT.

(M.I.E.) 1. ARM AND SHOULDER LEVERAGE
with REINFORCED ARM AT LE-
SION. (V) (A flying wedge treat-
ment.)

USE. This aids in raising the scapula and mak-
ing contractures more accessible.

POSTURE, POSITION and PRINCIPLE the
same as (R.I.E.3).

ACTION. **Hand one** carries muscles laterally as
arm two opposes.

M. MUSCULAR LESIONS.

D. DORSAL, MIDDLE and LOWER.

G. GENERAL or GENTLE TREATMENT.

(M.D.G) 1. SHOULDER LEVERAGE with FIN-
GERS at LESION. LYING.

USE. As low as fifth lumbar vertebrae.

POSTURE. **Patient** on side. **Operator** in front.

POSITION. Finger tips of hand one at spinous
processes. **Hand two** against shoulder.

Note: For lower dorsal and lumbar region **hand**
two shifts to anterior superior spine or crest of ilium,
with **hand one** the same.

ACTION. (a) **Hand one** carries muscles up
and away from spine greatest effort is used in lateral
direction.

(b) **Hand two** opposes **hand one** by forcing
shoulder away from operator.

(M.D.G.) 1. MODIFIED. Sitting.

POSTURE. Patient sitting on table. Operator in front and on opposite side of lesion.

POSITION of hands and

ACTION the same.

(M.D.G.) 2. ARM LEVERAGE with FINGERS at LESION. The same as (M.I.G.2), only hands do not cross.

USE. For bed-fast patients from first dorsal vertebrae to sacrum.

(M.D.G.) 3. BOTH HANDS at LESION with BODY WEIGHT OPPOSING.

USE. Can be given stronger as a combination treatment or for raising ribs.

POSTURE. Patient supine. Operator at side, facing head.

POSITION. Both hands reach under patient—one from each side. Finger tips at spinous processes.

ACTION. Lift and carry muscles upward and laterally away from spine.

M. MUSCULAR LESIONS.

D. DORSAL REGION.

D. DIRECT TREATMENT.

(M.D.D.) 1. SHOULDER LEVERAGE WITH THUMB AT LESION.

USE. From middle dorsal region down.

POSTURE. Patient sitting. Operator at back, sitting or standing.

POSITION. **Thumb one** pointing upward and lying close to spine at side one of patient. **Hand two** grasps shoulder one.

ACTION. (a) **Thumb one** applies strong pressure and carries mass or individual muscles laterally.

(b) **Hand two** holds firm or pulls shoulder backward in opposition.

(M.D.D.) 1. MODIFIED: LYING.

The same as (M.D.D.1) except:

POSTURE. **Patient** on side. **Operator** at back.

Note: For lower dorsal and lumbar region **hands** change at lesion, **hand two** grasping anterior superior spine of ilium to oppose.

(M.D.D.) 2. SEE (R.D.G.6) AND (R.D.G.6 MODIFIED).

PRINCIPLE. The same as these, except lateral stretching of muscles is given instead of pressure at angles or is given as a combination treatment.

(M.D.D.) 3. CIRCLING TRUNK and SHOULDER LEVERAGE WITH THUMB OR THENAR EMINENCE AT LESION. (SWING.)

USE. High as inter-scapular region.

POSTURE. **Patient** standing with arms in swing at axillae. **Operator** at back.

POSITION. **Thenar eminence** or **thumb one** at lesion. **Hand two** grasps shoulder one from above.

PRINCIPLE. Lateral stretching with trunk in motion.

ACTION. **Hand one** carries muscles and body away from operator, and **hand two** opposes at shoulder one to keep body from rotating. Body circles and returns to original position. Then repeat.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	14
3 or, c	12
4 or, d	13
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

M. MUSCULAR LESIONS.**D. DORSAL REGION.****E. EXTREME TREATMENT.**

(M.D.E.) 1. REINFORCED THUMB at LESION
with OPERATOR'S WEIGHT AIDING.

USED. For entire spine for individual contractures, badly contracted regions, for stimulation or deep masses of muscles, as in lumbar region; for lumbago, etc.

POSTURE. Patient prone. Operator on his knees on top of table to one side, with stool to steady foot.

POSITION. Thumb one near spinous processes, thumb two reinforcing it. Get well over lesion, so that operator's weight will aid.

ACTION. (a) Carry muscles upward and outward.

(b) Steady pressure—to relax.

(c) Intermittent pressure—to stimulate.

(d) Pressure with rotary oscillation—for deep effects.

(M.D.E.) 2. Give (R.D.E.1) or shoulder leverage with knee at lesion, except:

POSITION. Knee against muscles instead of angles of ribs.

USE. Only where patients are extremely difficult to treat. There are some objections to this, however, as the patient is inclined to resist the same as if an inanimate object were used instead of the operator's hand.

(M.D.E.) 3. ARM AND SHOULDER LEVER-
AGE WITH REINFORCED HAND AT LESION.
(V.)

USE. La grippe, colds, fevers, etc., if daily treatment is not given. For deep muscular relaxing. For large and rigid patients.

POSITION. Same as (R.D.E.3) of same name, only applied to muscles instead of ribs, or given as a combination treatment.

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL: MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

M. MUSCULAR LESIONS.

L. LUMBAR REGION.

I. INDIRECT TREATMENT.

(M.L.I.) 1. LONGITUDINAL STRETCHING WITH TRUNK LEVERAGE.

POSTURE. Patient on stool or chair, hands between knees and bending forward. Operator in front.

POSITION. Both hands on patient's shoulders.

FIRST ACTION. Bear down on shoulders, stretching multifidis and erector spinae muscles.

SECOND ACTION. Rock shoulders, keeping the tension.

(M.L.I.) 2. LONGITUDINAL STRETCHING WITH LIMB LEVERAGE.

USE. For male patients. Only good if contracted so that patient feels the stretching.

POSTURE. Patient supine on table. Operator standing on feet of table, facing patient. Patient's Tendon of Achilles rests on operator's shoulders.

POSITION. Operator's hands hold patient's knees stiff.

ACTION. Flex limbs at hips by carrying heels forward to stretch lumbar region, keeping hips on table.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

1	(.....)	
.....		2
USE		3
1st POSTURE Patient		4
.....Operator		5
2d		6
1st POSITION Hand one		7
.....Hand two		8
2d		9
ACTION		10
Consecutively. Simultaneously.		
1	or, a	11
2	or, b	12
3	or, c	13
4	or, d	14
PRINCIPLE.....	acts as a ... class lever.....	15
.....	acts as a fulcrum with.....	16
as the power and.....	as the weight.....	17
DEGREE		18
.....		19
CAUTION		20
.....		21
NOTE		22
.....		23
.....		24

M. MUSCULAR LESIONS.**L. LUMBAR REGION.****E. EXTREME TREATMENT.****(M.L.E.) 1. REINFORCED THUMB AT LESION WITH OPERATOR'S WEIGHT AIDING.**

The same as (M.D.E.1) of same name.

(M.L.E.) 2. REINFORCED FINGERS AT LESION WITH OPERATOR'S WEIGHT AIDING.

The same as (M.D.E.1), except:

POSITION. **Fingers** at lesion are reinforced by **thenar eminence**.

(M.L.E.) 3. SWINGING LIMB AND PELVIC LEVERAGE WITH THUMBS AT LESION. (Assistant.)

USE. High is sixth dorsal vertebrae, for lateral or rigid conditions.

POSTURE. **Patient** prone. **Operator** at side above. **Assistant** at side below, supporting patient's limbs above patella.

POSITION. **Thumbs** of both **hands** or **thenar eminence** at lesion.

ACTION. **Assistant** carries limbs back and forth across table. **Operator** applies pressure at a point between spine and muscular contractures or directly on the latter.

CAUTION. Do not raise knees over six or seven inches from table.

(M.L.E.) 4. **Swinging Limb and Pelvic Leverage with Operator's Weight at Lesion. (Swing.) Illustrated.**

USE. High as sixth dorsal vertebrae for very rigid patients.

POSTURE. **Patient** prone on table, facing away from operator. **Operator** at side, standing on low stool if table is very high, and on opposite side to lesion.

POSITION. Patient's knees in swing supported above patella. **Heel of hand one** or **thenar eminence** at contracture on opposite side of spine. **Hand two** grasps farther limb below the knee or the swing at farther side.

ACTION. **Hand two** swings patient as a pendulum; **hand one** applies pressure as **hand two** draws patient toward operator.

DEGREE. Greater weight is applied below; 50 to 75 pounds in extreme cases.

NOTE: Patient must always **face away from operator**, so that body will incline toward operator.

M. MUSCULAR LESIONS.**S. SACRAL REGION.****D. DIRECT TREATMENT.****(M.S.D.) 1. THUMB PRESSURE AT POSTERIOR SACRAL REGION.**

POSTURE. **Patient** prone or sitting. **Operator** at side or back.

POSITION. **Thumbs** at either side of sacrum above and external to posterior superior spine of ilium.

ACTION. (a) Apply gentle or medium pressure, or (b) pressure with oscillation; (c) pressure in carrying muscles laterally.

FIRST AREA. Continue downward toward median line, following external borders of the sacrum.

SECOND AREA. Working outward from last two segments of sacrum over the great sciatic notch and piriformis muscle.

THIRD AREA. Working internal to posterior superior spine over sacral foramina one inch at the top and one and one-half inches at the fifth sacral.

Note: See lower limb, Rule four.

M. MUSCULAR LESIONS.**C. COCCYGEAL REGION.****D. DIRECT TREATMENT.****(M.C.D.) I. TRUNK LEVERAGE WITH HAND
AT ENTENSOR COCCYGEUS.**

USE. This also replaces the coccyx if anterior or lateral. A combination treatment.

POSTURE. Patient sitting, bending far forward.
Operator at side.

POSITION. Finger tips of hand one at tip of coccyx. Hand lies flat. Hand two and forearm supports patient's body at upper chest.

ACTION. (a) Hand one carries entensor coccygeus up and back, dragging coccyx and stretching the levator and sphincter ani as body is flexed on thighs. (b) The same, except that shoulders are carried from side to side. (c) Lifting and lowering body to increase the stress.

CERVICAL VERTEBRAE

V. VERTEBRAL LESIONS.

N. NECK, OR CERVICAL REGION.

G. GENERAL TREATMENT.

(V.N.G.) 1. OPPOSED SPIRAL OR CORK-SCREW. (Illustrated.)

USE. For general relaxing and attracting nutrition.

POSTURE. **Patient** supine without elevation under head, if possible. Head slightly beyond support and somewhat raised. **Operator** at head. Supporting patient's head against **operator's body**.

POSITION. **Hand one** grasps neck with fingers at lamina reaching from beneath to opposite side. **Hand two** grasps occiput at opposite side reaching beneath also.

ACTION. First. Draw each hand laterally away in opposition.

Second. Continue, circling each segment in opposition. **Operator's body** aiding **hand two** in holding and carrying head.



(V.N.G.) 2. LATERAL SPRINGING VIA TRANSVERSE PROCESSES.

USE. General or specific treatment.

POSTURE. **Patient** supine. **Operator** at head.

POSITION. Grasp neck at articular process of each side with **index fingers reinforced** by second and third fingers of same hand.

PRINCIPLE. **Index fingers** act as fulcrum on fixed point with head and neck above as levers.

ACTION. Pry from side to side, loosening the individual vertebrae

(V.N.G.) 2. Modified.

ACTION. Circle head in horizontal figure of eight. Otherwise the same as (V.N.G.2) preceding.

(V.N.G.) 3. LATERAL SPRINGING VIA SPINOUS PROCESS.

Use. General or specific treatment. Very effective. This is the same as (M.N.C. 1 b).

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.
SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.

N. NECK, OR CERVICAL REGION.

I. INDIRECT REMOVAL OF LESION.

Note: If head will not bend backward atlas is posterior, i. e., wedged between axis and occiput.

If head will not turn at right angles axis is at fault.

If head will not flex laterally the atlas and axis are both at fault.

The atlas acts as a washer and is carried with the head normally. Nature has made considerable allowance for atlas slips.

(V.N.I.) 1. Rotation with Increasing Stress.

POSTURE. Patient supine or sitting. Operator at head or back.

POSITION. Hand one on forehead. Hand two on occiput.

ACTION. First. Turn head to side.

Second. Steadily force it beyond normal limit.

PRINCIPLE. The tiring and relaxing of ligaments and muscles and correcting lesion by way of special strain on its attachments.

NOTE: Direct pressure will aid.

(V.N.I.) 2. Oscillation with Sudden Stress.

POSTURE. Patient supine. Operator at head.

POSITION. Operator's hands at side of patient's head or at crown and temple for better leverage.

ACTION. First. Oscillate, or rock head from side to side rapidly in less than normal arc.

Second. Patients devitalize their necks, and when sufficiently limp and off their guard give a sudden increase of pressure to one side, exceeding the normal limit.

(V.N.I.) 3. Exaggeration, Circling and Screw-Driving Rotation. (Illustrated).

POSTURE. Patient supine, head level with body. Operator at head.

POSITION. Thumbs together and hands at crown of head.

ACTION. First. Carry to side to exaggerate lesion.

Second. Circle forward a quadrant, holding all the tension you have gained.

Third. Simultaneously circle through second quadrant and rotate the head ninety degrees, thus facing head from front to side on which lesion is prominent.

Fourth. Apply pressure on top at about forehead, flexing it backward as head is rotated and carried back to first position with a screw-driving movement. If lesion is lateral to left, or the reverse if lateral to right.

PRINCIPLE of fourth is that of relaxing capsular ligaments or articular processes and grinding or gliding articulation to normal position.

Figures of diagram correspond with those under Action.

(V.N.I.) 4. **Rigid Neck Leverage with Shoulder Supporting Head.**

USE. The lower cervical and upper dorsal region. General or specific.

POSTURE. **Patient** sitting on high stool or low table. **Operator** in front and to one side.

POSITION. Operator's **hands** clasped in back of patient's neck. Patient's forehead at operator's **shoulder**. **Pisiform bones** engage lamina of lower cervical region.

PRINCIPLE. **Pisiform bones** make fixed point in breaking spine just below.

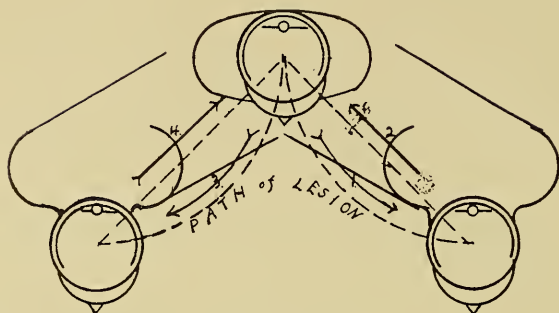
ACTION. First. Hold portion of neck clasped as well as head and neck above it rigid as you circle parts below grasp a quadrant forward and outward.

2nd. Return to normal.

3rd. Circle a quadrant to opposite side. Or repeat the first.

4th. Return to normal, as in following illustration.

NOTE. Patient must relax entire spine and especially at lumbar region.



(V. N. I.) 4

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.

N. NECK, OR CERVICAL REGION.

D. DIRECT TREATMENT.

(V.N.D.) 1. Exaggeration, Circling and Direct Pressure.

USE. From atlas down.

POSTURE. Patient supine with head slightly beyond table and against operator. Operator at head.

POSITION. Index finger reinforced at articular processes on each side with hands at side of head.

NOTE: In treating atlas fingers grasp postero lateral arch.

ACTION. First. Exaggerate lesion—carry head to side.

Second. Tire ligaments and muscles—by holding head to relax.

Third. Apply traction—to separate articulation.

Fourth. Circle with pressure during first quadrant—to exaggerate the lesion.

Fifth. Pressure is reversed to force lesion home while circling last part of last quadrant.

PRINCIPLE. Head acts as lever, body as fulcrum and lesion as weight.

(V. N. D.) 2. Exaggeration, Circling and Circling Within a Circle. (Illustrated.)

USE. Best for short stout-fingered operator.

POSTURE. Patient sitting on low stool. Operator in front and to one side.

POSITION. Finger tips at lesion and hands grasping head at sides with palms covering ears.

ACTION. Same principle as (V.N.D. 1) just preceding, except you describe a small circle the size of a dollar with finger tips at lesion when you reach the middle of last quadrant, i. e., you continue in the same direction during small circle.

NOTE: Head makes large circle and lesion makes small circle.

PRINCIPLE. The finger tips acting as a fulcrum over which to break the articulation of the lesion. The little circle is given as if to loosen a box from all sides that was frozen down.

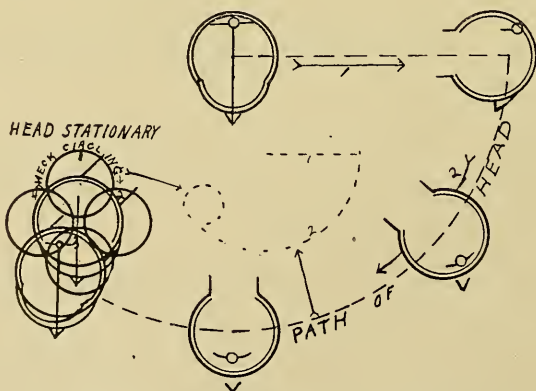


ILLUSTRATION OF (N. N. D.) 2 JUST PRECEDING

(V.N.D.) 3. Flexing with Rotary Oscillation.

USE. For posterior conditions.

POSTURE. **Patient** supine. **Operator** at head.

FIRST POSITION. **Hand two** at crown of head.

FIRST ACTION. **Hand two** flexes head forward.

SECOND POSITION. Thenar eminence or metacarpal bones of **thumb** of **hand one** engages posterior condition.

THIRD POSITION. **Hand two** changes to forehead.

SECOND ACTION. Flex head backward and oscillate while lesion is supported by **hand one** as above.

NOTE: **Elbow one** may rest on table as a reinforcement.

(V.N.D.) 3. Combined. Modified.

USE. For anterior conditions.

First give (V.N.I. 4) **hands clasped** with **knee supporting back**, then apply (V.N.D. 3) just preceding above and below the anterior condition directly on the adjoining vertebrae.

(V.N.D.) 4. Traction and Pressure at Lesion.

USE. **Atlas** and all cervical region.

POSTURE. **Patient** supine. **Operator** at head.

POSITION. **Hand one** beneath neck, **finger one** on spinous process or lamina, **hand two** at top of head.

ACTION. **Hand one** pulls laterally and at the same time assists **hand two** in traction.

NOTE: Slightly circling may aid.

(V.N.D.) 5. Exaggeration, Circling and Direct Pressure with Screw-Driver Rotation.

First give (V.N.I. 3) or Exaggeration, Circling and Screw-Driving Rotation to the end of the second quadrant and modify the rest by placing hand one on lesion, reaching from opposite side underneath.

ACTION. Bring head from lateral flexion to normal with the screw-driving movement, at the same time applying pressure to force lesion to normal position.

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a ..	11
2 or, b ..	12
3 or, c ..	13
4 or, d ..	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

V. VERTEBRAL LESIONS.

N. NECK, OR CERVICAL REGION.

E. EXTREME REMOVAL OF LESION.

(V.N.E.) 1. REINFORCING OPPOSED OR SHEARING MOVEMENT.

USE. Lateral slips in upper and middle cervical regions.

First give (V.N.I.) or **Exaggeration, Circling and Screw-Driving Rotation** treatment, then follow with:

POSTURE. Patient supine with head against operator. Operator at head.

FIRST POSITION. **Hand one** beneath neck, and ring finger on spinous process or lamina of prominent side of lesion. **Hand two** reaching beneath neck from opposite side of **hand one** and placing finger tips near mastoid process.

SECOND POSITION. **Thumb** of **hand two** reinforces ring finger of **hand one** at lesion.

ACTION. (a) **Operator's body** steadies patient's head. **Ring finger** of **hand one**, assisted by its reinforcement, or **thumb** of **hand two**, forces lesion laterally to normal, keeping head and neck rigid.

(b) **Fingers** of **hand two** grip to oppose as head and neck leverage are applied above.

PRINCIPLE is that of attempting to unscrew or shear head from spine by forcing adjoining vertebrae in opposite directions laterally, as the blades of a pair of shears cutting off a match.

(V.N.E.) 2. RIGID NECK LEVERAGE AND LATERAL PRESSURE WITH BODY WEIGHT RETARDING.

USE. Lateral conditions of middle and lower cervical region.

POSTURE. Patient supine. Operator at head.

FIRST POSITION. Hand one beneath neck and index or middle finger on lesion at spinous process or on lamina of prominent side above the joint, head against operator. Hand two beneath neck from opposite side.

SECOND POSITION. Thumb of hand two reinforces index finger of hand one.

ACTION. (a) Steady head with body, keeping head and neck rigid to make break at lesion.

(b) Force lesion laterally to normal.

DEGREE. Force may be sufficient to drag a medium-weight patient's shoulders two to four inches across a pantasote-covered table.

(V.N.E.) 3. RIGID NECK LEVERAGE WITH REINFORCED POSTERIOR PRESSURE AND MOTION.

USE. Posterior conditions of lower cervical region.

NOTE: See (V.N.D. 3) for posterior upper cervical lesions.

POSTURE. Patient supine. Operator at head.

POSITION. **Index finger of hand one** on lesion. **Index finger of hand two** reinforces it together with **rest of hand**. Hands reaching from opposite sides and at the same time grasping side of head. Hold top of head as a fixed point with hands and body of operator.

ACTION. (a) Apply pressure at lesion from below upward as head swings from side to side.

(b) As lesion is raised and lowered.

(c) As lesion is circled.

(d) As lesion is circled in figure of eight laterally.

(V.N.E.) 4. HEAD AND NECK LEVERAGE FOR
ROTATION, FLEXION AND STEADY PRES-
SURE WITH TRACTION.

USE. Rotated atlas at occipito atlantal articulation.

POSTURE. **Patient** sitting. **Operator** at back.

POSITION. **Index or middle finger of hand one** back of posterior transverse process; **thumb** at opposite side grasping neck. **Hand two** covers inferior maxillary supporting chin.

ACTION. (1) Rotate head facing it from side on which lesion is posterior.

(2) Also flex head to same side.

(3) Apply steady pressure at lateral mass which is most posterior, while rotating head and lifting it back to normal position.

(V.N.E) 4. MODIFIED. (Lying.)

USE. Rotated **atlas** at occipito atlantal articulation.

POSTURE. **Patient** supine. **Operator** at head.

POSITION. **Thumb** of **hand one** back of lateral mass which is most posterior, the **clenched fist** resting on table. **Hand two** covers inferior maxillary supporting chin.

ACTION. (1) Rotate head facing it from side on which lesion is posterior.

(2) Also flex head to same side.

(3) Apply steady pressure at lateral mass which is most posterior while rotating head and applying traction thus; lifting it back to normal position.

(V.N.E.) 5. RIGID NECK LEVERAGE WITH BOTH THUMBS AT LESION.

USE. Sixth cervical to second dorsal, inclusive.

POSTURE. **Patient** prone with head and shoulders overhanging head of table. **Operator** at head.

POSITION. **Hands** grasp head and neck laterally, holding them rigidly; thumbs at lamina of vertebral lesion; **little fingers** support chin.

ACTION. (1) Exaggeration or flexing to side away from prominence of lesion.

(2) Flex neck upward, making break or fixed point with **thumbs** on lesion.

(3) Flexion to prominent side of lesion with direct pressure on lesion.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	14
3 or, c	12
4 or, d	13
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

THE SPINE

V. VERTEBRAL LESIONS.

U. UPPER DORSAL REGION.

G. GENERAL TREATMENT.

The general treatment is adapted to swerves, rigid or straight spine, increasing spinal nutrition or reducing spinal congestion and inflammation.

NOTE. **Vertebral spreads** are treated by first giving lateral springing and, second, direct forward pressure on upper vertebrae, or upward on lower vertebrae, or both.

(V.U.G.) 1. LONGITUDINAL TRACTION HORIZONTALLY APPLIED.

USE. Entire spine; also used in diagnosing special lesions by way of tenderness.

POSTURE. **Patient** supine. **Operator** at head.

POSITION. **Hand one** at occiput, **hand two** at chin.

ACTION. Pull steadily.

DEGREE. Enough to slide a medium-weight patient on a pantasote surface.

(V.U.G.) 1. Modified. **Head Overhanging.**

USE. For **posterior conditions** as low as sixth dorsal.

POSTURE. **Patient** supine with head beyond table, so that convexity rests on **padded head of table.**

ACTION. Pull away and slightly downward.

DEGREE. Less than (V.U.G. 1) just preceding.

(V.U.G.) 2. LONGITUDINAL TRACTION VERTICALLY APPLIED.

USE. For posterior conditions as low as sixth dorsal and the entire spine.

POSTURE. **Patient** sitting on low stool. **Operator** at back.

POSITION. Operator's **knee** at convexity. **Hand one** at chin or forehead. **Hand two** at occiput.

ACTION. (a) Rock **hand two** back with **wrist** as a fulcrum. **Hand one** steadying and lifting at the same time.

(b) Operator stands on **chair** and pulls up and back steadily with both hands, drawing prominence of lesion against operator's **knee and shin**.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.

U. UPPER DORSAL REGION.

I. INDIRECT TREATMENT.

(V.U.I.) 1. SHOULDER AND NECK LEVERAGE WITH HANDS CLASPED AND KNEE BELOW LESION.

USE. For **absence of normal curve** or **anterior swerve**, or preparatory to direct pressure above and below anterior slips. Effective as low as eighth dorsal vertebrae.

POSTURE. **Patient** sitting. **Operator** at back.

POSITION. Patient's hands clasped over lower cervical region, operator's **knee** touching at sixth to eighth dorsal as in (V.U.G. 2) preceding. Operator's **forearms** under patient's axilla and **hands** reaching upward graps patient's wrists.

ACTION. Operator straightens **arms**, forcing lower cervical region slightly forward as **knee** holds firmly, thus bending spine backward.

(V.U.I.) 1. Modified or LIFT, DROP AND CATCH.

USE. Action (A) for **entire spine**; (B) as low as eighth or tenth dorsal.

POSTURE and POSITION. Same as (V.U.I. 1) above, except that **knee** is not used. Operator keeping **forearm** close against patient's sides. Patient relaxes region.

A. ACTION. (a) Lift patient partly from stool.

(b) Lower operator's forearms suddenly as if to drop patient.

(c) Endeavor to straighten operator's arms slightly, or at least catch patient before alighting on stool.

B. ACTION. (a) Sway patient back and forth to get relaxation.

(b) Apply sudden stress as above.

(V.U.I.) 2. THE LIFT, DROP AND CATCH
WITH OPERATOR BOWING BACKWARD.

USE. For a short operator.

POSTURE. Patient sitting on table. Operator at back. Operator bows backward to lift patient.

PRINCIPLE. That of winding patient over onto operator's chest, as a rope over a pulley.

POSITION. Hands same as (V.U.I. 1) the second preceding.

ACTION. Then drop and catch as in (V.U.I. 1 Modified), just preceding.

V. VERTEBRAL LESIONS.

U. UPPER DORSAL REGION.

D. DIRECT REMOVAL OF LESION.

(V.U.D.) 1. HEAD AND NECK LEVERAGE WITH THUMB AT LESION.

POSTURE. **Patient** sitting on stool or chair.
Operator at back.

POSITION. **Hand two** at crown; **thumb one** at lesion.

ACTION. (a) **Hand two** prys head and neck to one side, **thumb one** loosens individual vertebrae in treating swerves, or

(b) exaggerate then change to opposite side to pry lesion into normal position.

(V.U.D.) 1. Modifications:

A. **Finger one** may be reinforced by **thumb** inside of it, or

B. **Finger one** may oppose **thumb** in gripping lesion, or

C. **Hand two** grip neck and **thumb two** reinforce **thumb one** at lesion.

(V.U.D.) 2. HEAD FIXED WITH BOTH THUMBS AT LESION.

POSTURE. **Patient's** head against wall, with pillow to pad it. **Patient** sitting and **operator** at back and to one side.

POSITION. **Thumbs** at either side of lesion.

ACTION. Head remains fixed as **thumbs** manipulate lesion as in (V.U.D.) 1 preceding.

(V.U.D.) 3. NECK AND SHOULDER LEVER-
AGE WITH THUMB AT LESION.

USE. For interscapula region

POSTURE. **Patient** sitting. **Operator** in front and to one side.

POSITION. **Arm two**, which is nearest patient, passes back of neck, with **hand two** under, opposite axilla from in front.

ACTION. (a) Bend neck and upper spine forward and spring opposite side of thorax backward, thus rotating spine.

(b) **Hand one** opposes at lesion and manipulates as in (V.U.D. 1) preceding.

NOTE. Remember that HAND NO. 1 is always the one at the lesion. All members of same side of operator and patient are also No. 1. The other side is No. 2.

(V.U.D.) 4. FOLDED ARM LEVERAGE.

USE. Low as sixth dorsal or lower.

POSTURE. **Patient** sitting on stool. **Operator** at back and at one side. Patient's arms folded above head.

POSITION. **Thumb** of **hand one** at lesion. **Hand two** reaches in front of patient and grasps arm two about elbow.

ACTION. **Hand two** carries arms and head to first exaggerate, second circle forward, and third oppose as **hand one** prys lesion to normal.

NOTE: In treating lower down **hand one** may be reinforced by elbow resting against operator's thigh.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	14
3 or, c	12
4 or, d	13
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

V. VERTEBRAL LESIONS.

U. UPPER DORSAL REGION.

E. EXTREME REMOVAL OF LESIONS.

(V.U.E.) I. REINFORCED DOWNWARD PRESSURE AT SPINOUS PROCESS.

USE. If operator stands at side, this may be used for posterior conditions of entire spine, and most ribs.

POSTURE. Patient prone on table, with pillow beneath chest, or patient may hang across table with arms dangling. Operator at head, on footstool.

POSITION. Operator's thumb or thenar emi-nence at spinous process of lesion reinforced with hand two.

ACTION. A. Patient inhales deeply, then operator gives sudden downward pressure during exhalation, or

B. First give steady pressure to tire and relax, second sudden pressure.

CAUTION. There is some danger of slipping the wrong rib.

NOTE: It is always harder on patient, as well as operator, to reduce lesion by main strength with patient forced against an inanimate object. It is facilitated with the patient or articulation in motion. As with patient sitting inclining forward, with elbows or axillae suspended.

(V.U.E.) 2. ARM AND TRUNK LEVERAGE
WITH REINFORCED ARM AT LESION (V).

(A Flying Wedge Treatment.)

FIRST POSTURE. **Patient** on low stool or chair. **Operator** at back and to one side, facing patient.

POSITION. **Thenar eminence** of **hand one** at lesion. **Elbow one** is reinforced by **thigh one**, which is raised by **foot one**. **Arm two** reaches across shoulder two or nearest; **hand two** grasps elbow one or farthest.

SECOND POSTURE. **Patient** leans back at angle of thirty degrees and relaxes.

ACTION. First. **Hand one** and its reinforcements bring pressure on lesion as **hand two** carries trunk back by forcing elbow one and shoulder two backward with elbow pointing away from body. Give steady pressure.

Second. Increase with sudden pressure on lesion at finish, taking patient unawares.

(V.U.E.) 2. MODIFIED, OR SHOULDER AND
NECK LEVERAGE WITH REINFORCED
ARM AT LESION (V).

(A Flying Wedge Treatment.)

USE. For lateral curves, also for interscapular region.

POSTURE and POSITION. The same as (V.U.E. 2), except that **arm two** is over shoulder one, with **arm two** bearing against patient's neck.

ACTION. **Hand one** and its reinforcements force lesion up, in and laterally as **arm two** rotates shoulder one backward, forcing neck in opposition to pressure at lesion.

(V.U.E.) 3. FOLDED ARM LEVERAGE SWINGING WITH OPERATOR'S WEIGHT

AIDING. (SWING.)

USE. Low as **lumbar region**, also applied to **ribs**. Unusually easy for operator.

POSTURE. **Patient** sitting on stool inclining forward at an angle of forty-five degrees, with arms folded at level of face. Arms supported in **swing** above elbows. **Operator** at side.

NOTE: **Stool** should be covered with plush, corduroy or brussels, or be provided with knee rests to keep patient from sliding forward.

POSITION. **Thumb** or **thenar eminence** of **hand one** at lesion. **Hand two** reaches in front of patient and swing to grasp elbow two or fartherest.

PRINCIPLE. Both **operator's** and **patient's** weight count for energy expended.

ACTION. **Hand one** exaggerates, then prys lesion to the normal as **hand two** opposes.

DEGREE. Pressure may be increased without discomfort if **swing** supports arms near or at axillae.

(V.U.E.) 4. CLASPED ARM LEVERAGE BOW-
ING SPINE WITH SWINGING FULCRUM
AND THUMB AT LESION. (SWING.)

USE. For **anterior** and **lateral** conditions in the **upper dorsal**, **cervical** and **inter-scapular regions**, except when neck is too supple.

NOTE: Swing replaces operator's forearms as in (V.U.I.) 1, giving operator the added use of two hands.

POSTURE. **Patient** sitting beneath **swing** on corduroy-covered stool (to prevent sliding), or with knees fixed against a support. **Patient** inclining body forward at an angle of 60 degrees from floor. **Swing** is carried forward to support patient's axillae. **Patient's** arms clasped with hands gripping forearms near elbows and placed back of head, just below crown. **Operator** at side, facing patient.

POSITION. **Thumb** of **hand one** at spinous process, **hand two** grasps elbow one, or farthest, as operator's **forearm two** rests on patient's clasped arms.

ACTION. First. **Forearm two** bears down on patient's clasped arms, forcing head downward and forward to bow spine posteriorly.

Second. **Thumb** of **hand one** forces lesion laterally as **forearm two** swings **patient** in opposition, thus forcing lateral conditions back to normal.

For **anterior** conditions work spinous process back and forth laterally as if loosening a nail as hand one applies leverage in opposition. For **mid-dorsal region** lower swing a few inches.

PRINCIPLE. The swing supports axillae as a fulcrum and arm two applies pressure as the power of a first-class lever raising the weight or lesion posteriorly include all upper dorsal treatments.

NOTE: Treatments for the interscapular region
iorly.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
I or, a	11
.....	12
PRINCIPLE.....acts as a ... class lever.....	15
DEGREE	18
CAUTION	20
NOTE	22

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	14
3 or, c	12
4 or, d	13
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

V. VERTEBRAL LESIONS.

I. INTER-SCAPULAR REGION.

G. DIRECT REMOVAL OF LESION.

(V.I.G.) 1. Similar to (M.I.G. 1). Elbow and Shoulder

Leverage With Hand Reinforced.

POSTURE. Patient on side.

V. VERTEBRAL LESION.

I. INTER-SCAPULAR REGION.

D. DIRECT REMOVAL OF LESION.

(V.I.D.) 1. Similar to (M.I.D.) 1, or Arm Leverage

With Inverted Thumb at Lesion.

(V.I.D.) 2. NECK, ARM AND SHOULDER

LEVERAGE, PATIENT'S ARMS CLASPED.

(ILLUSTRATED.)

POSTURE. Patient sitting with arms clasped at forehead. Operator at back.

USE. Lateral fifth cervical to sixth dorsal.

POSITION. Thumb one or thenar eminence at lesion, hand two reaches across crown of head and grasps elbow one, or farthest elbow.

ACTION. Hand one brings pressure at lesion as hand two opposes.

PRINCIPLE. Not rotating upper trunk, but springing it at lesion.

NOTE. Patient should incline forward. This is given easier with arm supported in swing at elbows.

(V.I.D.) 3. RIGID HEAD AND NECK LEVERAGE, PATIENT'S HANDS CLASPED.

USE. Posterior conditions, second to sixth dorsal.

POSTURE. **Patient** sitting with hands clasped at back of neck. **Operator** at back.

POSITION. **Thumb one** or **thenar eminence** at lesion, **hand two** grasps elbows, binding head between them.

ACTION. **Hand one** brings pressure at lesion as **hand two** raises, lowers and circles elbows while opposing.

PRINCIPLE. Rocking upper trunk or springing it at lesion.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.

I. INTER-SCAPULAR REGION.

E. EXTREME TREATMENT.

NOTE: SOME ESPECIALLY EFFECTIVE SWING TREATMENTS FOR THIS REGION ARE (V. U. E.) 3-(V. U. E.) 4-(R. I. E.) 2.

(V.I.E.) 1. Similar to (R.I.E. 3) or Arm and Shoulder Leverage with Reinforced Arm at Lesion. (V.)

POSTURE. Patient lying on side. Operator at back.

NOTE: A flying wedge treatment.

(V.I.E.) 2. NECK, ARM AND SHOULDER LEVERAGE, PATIENT'S HANDS CLASPED AND REINFORCED ARM AT LESION.

NOTE: A flying wedge treatment.

USE. Very effective in lateral conditions. Also applied lower or with patient's knees fixed for forcible rotation of spine.

FIRST POSTURE. Patient sitting on low stool or chair, knees against wall, with hands clasped at back of neck. Operator facing convex side of lesion. Operator grasps his own coat sleeve of hand two with same hand.

POSITION. Hand two is forced between neck and farthest elbow of patient up beyond operator's elbow. Hand one reinforced by elbow, knee and foot.

SECOND POSTURE. Operator backs to side of patient.

ACTION. Hand one forces lesion laterally as arm two opposes, forcing shoulder backward.

V. VERTEBRAL LESIONS.

D. DORSAL, MIDDLE AND LOWER REGIONS.

G. GENERAL TREATMENT.

(V.D.G.) 1. SHOULDER LEVERAGE WITH FINGERS AT LESION. **Lying on side.**

USE. Dorsal and lumbar regions for mild treatment.

POSTURE. **Patient** on side. **Operator** in front.

POSITION. **Finger tips of hand one** grasp spinous processes. **Hand two** on shoulder.

PRINCIPLE. Springing the spine.

ACTION. **Hand one** springs vertebrae forward and laterally, i. e., toward operator and upward. **Hand two** opposes at shoulder.

NOTE: For lumbar region **hand two** on anterior superior spine of ilium.

(V.D.G.) 2. SHOULDER LEVERAGE WITH FINGERS AT LESION. **Patient supine.**

POSTURE. **Patient** supine. **Operator** at side.

POSITION. **Hand one** passing directly under to spinous process. **Hand two** on nearest shoulder.

PRINCIPLE and ACTION same as (V.D.G. 1) just preceding.

NOTE: For lumbar region **hand two** at anterior superior spine of ilium.

(V.D.G.) 2. MODIFIED. Reinforced.

USE. Very effective for bedfast patients.

NOTE: Patient's weight replaces hand two, and hand two reinforces hand one.

(V.D.G.) 3. SHOULDER LEVERAGE WITH THENAR EMINENCE AT LESION. LYING.

USE. For bedfast patients. Less effective than (V.D.G. 3) MODIFIED, following.

POSTURE. Patient on side. Operator at back.

POSITION. Thenar eminence of hand one at lesion; operator's elbow reinforced by resting against operator's hip. Hand two at shoulder or hip.

ACTION. Oppose pressure at lesion with hand two.

PRINCIPLE. Rotation of spine with pressure at lesion.

(V.D.G.) 3. MODIFIED. SITTING.

POSTURE. Patient sitting on table. Operator standing at back, or patient sitting on stool or chair and operator sitting on chair or bed.

POSITION. Thenar eminence or thumb one at spinous process. Elbow one reinforced by hip one.

ACTION. Hand two opposes at opposite shoulder.

(V.D.G.) 4. SHOULDER LEVERAGE WITH THENAR EMINENCE AT LESION. Prone. Similar to (R.D.G.) 4. Use entire spine for rotations and posterior conditions.

POSTURE. Prone. Operator at opposite side if rotated.

POSITION. Thenar eminence or thumb one at spinous process, or in rotations on transverse processes, most prominent. Hand two on shoulder one, or the farthest.

ACTION. Hand one lifts shoulder from table as hand two opposes.

First. Steady pressure.

Second. Sudden pressure.

NOTE: For upper dorsal region operator moves around toward head of table, grasping shoulder at axilla.

For lower dorsal and lumbar region, hand one changes to grasp anterior superior spine, and hand two replaces hand one.

CAUTION: There is some danger of slipping other ribs. Perhaps best given with pillow under breast, especially with lady patients.

(V.D.G.) 5. SHOULDER AND HIP LEVERAGE
WITH FOREARMS. BOTH HANDS AT
LESION. (Illustrated.)

USE. To attract nutrition and correct lesions.
Is best for operators with short, strong fingers.

POSTURE. Patient on side. Operator in front.

POSITION. Forearm one against shoulder.
Forearm two against hip. Finger tips of both hands
at lesion.

ACTION. Fingers spring spine and forearms oppose.

PRINCIPLE. Two levers.

(V.D.G.) 5. MODIFIED.

POSTURE AND POSITION. Same.

ACTION. Arms manipulate hip and shoulder so
as to aid fingers approximate and separate lesion, like
squeezing a sponge or playing an accordin.

V. VERTEBRAL LESIONS.

D. DORSAL REGION.

I. INDIRECT TREATMENT.

(V.D.I.) 1. Same as (V.U.I. 1 Modified) or the Lift,
Drop and Catch.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
.....	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE	15
..... acts as a fulcrum with	16
as the power and.....as the weight	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

V. VERTEBRAL LESIONS.

D. DORSAL REGION.

D. DIRECT TREATMENT.

(V.D.D.) 1. TRUNK LEVERAGE TO SPRING,
CIRCLE AND LIFT TO NORMAL.

(Illustrated.)

USE. Best for operator with short fingers.

POSTURE. **Patient** sitting on table or stool.
Operator in front.

POSITION. **Hand one** reaches around, gripping vertebrae below lesion. **Hand two** supports shoulder diagonally opposite.

ACTION. First. **Hand two** carries upper trunk to side to break lesion, as **hand one** makes fixed point below lesion.

Second. Circle body to front, as if to break loose remaining sides of articulation, and

Third. Lifting and rotating trunk to set vertebrae back to normal.

(V.D.D.) 1. MODIFIED. REINFORCED
same as (V.D.D. 1), except:

POSITION. **Hand two** reinforces **hand one** at spine, reaching around from opposite side. Operator's **head, chin** and **forearms** replace **hand two** to aid movement of trunk to break, circle, lift and rotate.

(V.D.D.) 2. TRUNK LEVERAGE TO SPRING,
CIRCLE, ROTATE AND FORCE TO
NORMAL.

USE. More effective than the two just preceding.

POSTURE. **Patient** sitting. **Operator** at back and to one side, away from lesion.

POSITION. **Thumb one** or **thenar eminence** below lesion. **Hand two** across patient's chest, grasping shoulder one or farthest. **Elbow two** grasps shoulder two.

ACTION. First. Spring by drawing patient to side at which operator stands.

Second. Circle trunk forward one quadrant.

Third. Circle trunk second quadrant while rotating trunk 45 degrees to side.

Fourth. Apply direct pressure while pulling trunk back to normal sitting posture.

(V.D.D.) 3. LOWER TRUNK AND LIMB TRAC-
TION WITH THENAR EMINENCE AT
LESION. (SWING.)

USE. For posterior conditions.

POSTURE. **Patient** standing one or two feet in front of ceiling hooks with arms in swing. **Operator** at back.

POSITION. **Thenar eminence** of **hand one** at convexity. **Hand two** grasps shoulder two. **Operator's arms** straight.

ACTION. First. **Operator** walks forward, keeping **arms** straight while giving direct pressure on lesion.

Second. With sudden jolts, spring spine at lesion.

DEGREE. The nearer vertical the straps or ropes hang the less resistance will be noticed.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.

D. DORSAL REGION.

E. EXTREME REMOVAL OF LESIONS.

(V.D.E.) 1. ARM AND BILATERAL TRUNK
LEVERAGE WITH REINFORCED ARM
AT LESION. A FLYING WEDGE
TREATMENT.

FIRST POSTURE. **Patient** on low stool or chair. **Operator** at back and to one side, facing patient.

POSITION. **Thenar** eminence of **hand one** at lesion. **Elbow one** is reinforced by **thigh one**, which is raised by **foot one**. **Arm two** reaches across shoulder two, or nearest; **hand two** grasps **elbow one**, or farthest. **Axilla two** gripping shoulder two.

SECOND POSTURE. **Patient** leans back at angle of sixty degrees and relaxes. Get good contact with lesion.

ACTION. First. **Hand one** and its reinforcements bring pressure on lesion as **hand two** carries trunk back by forcing **elbow one** and shoulder two backward with **elbow pointing away from body**. Give steady pressure.

Second. Increase with sudden pressure on lesion at finish, **taking patient unawares**. Either lifting **heel** or swinging in **knee**.

DEGREE. May lift a medium-weight patient from stool.

(V.D.E.) 2. SHOULDER AND LATERAL TRUNK LEVERAGE WITH REINFORCED ARM AT LESION. Same as (V.U.E. 2) Modified, or Shoulder and Neck Leverage with Reinforced Arm at Lesion, except:

ACTION. There is no lateral pressure on neck.

POSITION. Arm two is over shoulder, otherwise similar to (V.D.E. 1) preceding.

USE. For lateral conditions almost entire length of spine.

NOTE: Foot may engage chair leg.

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

(V.D.E.) 3. TRUNK LEVERAGE TO SPRING AND CIRCLE WITH REINFORCED HAND AT LESION. Similar to (V.D.D. 2), or TRUNK LEVERAGE TO SPRING, CIRCLE, ROTATE AND FORCE TO NORMAL, and in addition

Hand One is reinforced by Elbow, Knee and Foot.

(V.D.E.) 4. SHOULDER AND ARM LEVERAGE WITH PATIENT'S WEIGHT AND REINFORCED ARM AT LESION. (V.)

USE. For medium or heavy patients this is the most extreme treatment.

FIRST POSTURE. Patient standing. Operator at back and to one side.

FIRST POSITION. Thenar eminence of hand one at lesion, reinforced by elbow, knee and foot one.

SECOND POSTURE. Foot one supported on stool 6 to 12 inches high, and, if needed, foot two on stool 4 to 8 inches high.

SECOND POSITION. Hand two reaches across patient's chest and grasps elbow one, or farthest, and arm two grasps side two of patient.

ACTION. First. Patient is tilted or bowed backward and steady pressure brought on lesion.

Second. Sudden pressure is given unawares, or at expiration.

DEGREE. May lift 160-pound patient from feet.

(V.D.E.) 5. CIRCLING AND BOWING SPINE
FOR ALTERNATE EXAGGERATION AND
PRESSURE FOR REDUCTION OF LESION.
(SWING.)

USE. For lateral swerves, slips or general freeing of spinal articulations.

POSTURE. **Patient** standing with arms in **swing** at axilla. **Operator** standing at convex side of lesion and diagonally back of **patient**. **Operator's foot one** near patient and **foot two** diagonally backward one step.

POSITION. **Patient's** hands clasped in front. **Operator's hand two** grasps patient's clasped hands. **Thumb** or **thenar eminence** of **hand one** at spinous processes.

ACTION. First. With **both hands** start patient's body from you and continue around in a circle, keeping **patient's** feet on floor, beneath ceiling hooks.

Second. Apply pressure at convexity of lateral deviation of spine as **patient** swings from operator.

Third. Continue circling body and moving from vertebrae to vertebrae with pressure.

NOTE: **Straps of swing** should be crossed from 5 to 14 inches for a 10-foot ceiling to increase the incline of shoulders and motion of spine as body travels around circle.

(V.D.E.) 5. MODIFIED. (SWING). The same, except path of lesion is one-half the diameter and lies forward and toward lesion side of ceiling hooks.

USE. Fourth to tenth dorsal and typical ribs.

(V.D.E.) 6. ARM AND SHOULDER LEVERAGE SWINGING TRUNK WITH OPERATOR'S WEIGHT AT LESION. (SWING.)

USE. Posterior, lateral and rigid conditions.

POSTURE. **Patient** sitting, inclining forward at 30 degrees, with **swing** supporting axillae. **Operator** at side.

POSITION. Thenar eminence of **hand one** at lesion. **Hand two** reaches down in front of shoulder one, or farthest, grasping elbow one.

ACTION. **Hand one** applies steady pressure. **Hand two** opposes or lifts at elbow while swaying trunk. **Hand one** applies sudden pressure, if needed.

NOTE: Most Dorsal, i. e., Middle and Lower, Treatments are Applied to Lumbar Region.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

V. VERTEBRAL LESIONS.

L. LUMBAR REGION.

G. GENERAL TREATMENT.

(V.L.G.) 1, 2 and 3. HIP LEVERAGE WITH FINGERS AT LESION.

Same as (V.D.G. 1, 2 and 3), or Shoulder Leverage with Fingers or Thumb at Lesion, except:

POSITION. Hand two is at hip instead of shoulder.

(V.L.G.) 4. SHOULDER LEVERAGE WITH THUMB AT LESION.

POSTURE. Patient and operator sitting similar to (M.D.D. 1) or Shoulder Leverage with Thumb at Lesion.

V. VERTEBRAL LESIONS.

L. LUMBAR REGION.

I. INDIRECT TREATMENT.

(V.L.I.) 1. Same as (M.L.D. 1), or LONGITUDINAL STRETCHING WITH TRUNK LEVERAGE.

USE. For rigid or anterior conditions and muscular contractions.

POSTURE. Patient on stool.

(V.L.I.) 2. Same as (M.L.I. 2), or LONGITUDINAL STRETCHING WITH LIMB LEVERAGE. (FOR MALES.)

USE. Same as (V.L.I. 1) just preceding.

V. VERTEBRAL LESIONS.

L. LUMBAR REGION.

D. DIRECT REMOVAL OF LESION.

(V.L.D.) 1. LOWER TRUNK AND LIMB LEVERAGE WITH LESION AT EDGE OF TABLE.

USE. For lateral or posterior conditions. (See action.)

POSTURE. **Patient** on back, sacrum beyond table. **Operator** at foot, facing patient.

POSITION. Patient's knees over operator's shoulders. Patient's feet crossed. **Little finger of clenched fist** on edge of table, supporting lesion.

FIRST ACTION. For **Lateral** first exaggerate, second circle, and third spring to normal.

SECOND ACTION. For **Posterior** carry knees in figure of eight with **shoulder** or raise and lower.

(V.L.D.) 2. FLEXED LIMB AND HIP LEVERAGE WITH REINFORCED FINGERS AT LESION.

USE. For lateral or posterior conditions or rigid spine. If lateral have convexity down.

POSTURE. **Patient** on table on side, with knees and thighs flexed on abdomen. **Operator** in front. **Patient's** shins against operator.

POSITION. Operator's **fingers** of **hand one**, reinforced by **hand two** and gripping spinous processes from below.

ACTION. Lift and spring spine, carrying patient's limbs back and forth with aid of **operator's** body.

(V.L.D.) 2. MODIFIED. ON BED OR COUCH.

POSTURE. The same, except **operator** faces head, and patient's shins strike side of **operator's** leg about knee.

POSITION. **Hand one** at lesion. **Hand two** supports knees.

ACTION. Flexion and extension of **operator's** **knees** carries patient's limbs as **hand one** manipulates lesion.

(V.L.D.) 3. SWINGING LIMB AND PELVIC LEVERAGE WITH LATERAL PRESSURE AT LESION. (SWING.)

USE. For lateral conditions or rigid spine high as sixth dorsal vertebrae.

POSTURE. **Patient** prone, arms hanging over each side of table. Lower limbs supported above patella in swing. **Operator** at side.

POSITION. **Thumb one** or thenar eminence at lesion. **Hand two** grasps farther side of swing.

ACTION. **Hand two** draws patient's limbs toward operator as **hand one** opposes or forces lesion to normal position.

(V.L.D.) 3. MODIFIED. (ASSISTANT.)

The same as (V.L.D.) 3 preceding, except operator or assistant carries patient's limbs on forearm. The objection to the operator doing the lifting is that it requires about nine-tenths of the operator's energy, leaving only one-tenth to be expended at lesion.

(V.L.D.) 4. SWINGING LIMB AND PELVIC LEVERAGE WITH OPERATOR'S WEIGHT AT LESION. (SWING.)

USE. For posterior conditions of spine as high as sixth dorsal vertebrae; including posterior sacrum.

Similar to (V.L.D. 3) preceding, except:

POSTURE. Operator on stool, if needed, to get directly over lesion.

POSITION. Thenar eminence of hand one directly over spinous process of lesion.

ACTION. First. Steady pressure at prominence of lesion.

Second. Sudden pressure given unawares.

(V.L.D.) 5. CRANK LEVERAGE OF LEGS WITH THUMB OR FINGERS OPPOSING AT LESION. (ILLUSTRATED.)

POSTURE. Patient on side on table, with knees flexed at right angles or less. Operator in front.

PRINCIPLE. Shown in drawing: L. C. Legs act as crank. T. A. Thighs act as axle. P. H. Pelvis acts as hub. S. S. Spine acts as flexible spoke of wheel.

POSITION. **Thumb** or **fingers** of **hand one** grasp spinous processes. **Hand two** grasps ankles. Patient's knees and legs extending beyond table and brace against operator.

ACTION. First. Lift ankles to force or bow spine downward and oppose or lift upward with **fingers** at lesion.

Second. Lower ankles to bow spine upward and oppose or press downward with **thumb** at lesion.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
I or, a	11
.....	12
PRINCIPLE.....acts as a ... class lever.....	15
DEGREE	18
CAUTION	20
NOTE	22

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	I
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

V. VERTEBRAL LESIONS.

L. LUMBAR REGION.

E. EXTREME TREATMENT.

(V.L.E.) 1, 2, 3 and 4. Same as (V.D.E. 1, 2, 3 and 4),
all Flying Wedge Treatments.

(V.L.E.) 5. FLEXED LIMB AND LOWER
TRUNK LEVERAGE WITH REINFORCED
ARM AT LESION SUPPORTING PATIENT'S
WEIGHT. (V.) (A FLYING WEDGE
TREATMENT.)

USE. The **most extreme** treatment for posterior
conditions of lumbar region.

FIRST POSTURE. **Patient** on side on table.
Hips backed to edge. Trunk lying diagonally across,
with head to opposite side of table and flexed. **Ope-**
rator at back. **Patient** must relax.

POSITION. Thenar eminence of hand one at
lesion, reinforced by elbow, knee and foot. Arm two
grasps patient's knees.

FIRST ACTION. **Hand two** lifts knees to roll
patient on back.

SECOND POSTURE. **Patient** on back, so that
hand one and its reinforcements support lower trunk
and limbs of patient at prominence of lesion or spi-
nous process, which acts as a fulcrum. **Patient** re-
laxes.

SECOND ACTION. **Hand two** flexes and ex-
tends thighs so as to rock or teeter on lesion.

THIRD ACTION. Extra or sudden pressure is applied from below via **hand one** and **its reinforcements**, or **elbow**, **knee** and **foot**.

NOTE: If patient's shoulders rise from table then relaxation is incomplete and operator's work is unnecessarily doubled.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.

S. SACRUM.

I. INDIRECT REMOVAL OF LESIONS.

RULE. The **sacrum** is adjusted indirectly by correcting the relative position of adjacent bones, i. e., fifth lumbar and the innominates (see their treatments) as well as by direct treatment.

(V.S.I.) 1. KNEES FLEXED ON ABDOMEN, SUPPORTING OPERATOR'S WEIGHT.

USE. To spring or bow lumbo-sacral articulation posterior and supplement direct treatment of lumbar region.

POSTURE. **Patient** on back, with thighs flexed on abdomen. **Operator** on stool at side.

POSITION. Operator's chest on **patient's shins**, and operator's hands grasp table; or **hand two** on shins, near knee, and **hand one** on sacrum.

PRINCIPLE. A two-armed lever.

ACTION. Press down on shins, throwing lumbar region posterior and apply rotary oscillation to lever on table as a pivot.

V. VERTEBRAL LESIONS.

S. SACRUM.

D. DIRECT REMOVAL OF LESION.

(V.S.D.) 1. CIRCLING FLEXED KNEES AND SUPPORTING ABDOMEN AND LOWER TRUNK WITH HAND AT LESION. SUPINE.

USE. Posterior fifth lumbar vertebrae or sacrum.

POSTURE. **Patient** supine, with knees and thighs flexed. **Operator** at side.

POSITION. **Thenar** eminence of **hand one** at posterior portion of lesion, lying flat.

ACTION. **Hand one** presses upward as **hand two** circles one or two knees, pulling toward operator when flexed the most.

(V.S.D.) 1. MODIFIED. PATIENT ON SIDE.

POSTURE. **Patient** on side, facing operator. **Operator** at side.

POSITION. **Hands** the same as (V.S.D. 1) just preceding.

ACTION. **Hand one** pulls as **hand two** circles one or two knees from you, i. e., the top of the circle.

NOTE: See innominate treatment. Oftentimes adjusting both innominates is equivalent to correcting the sacrum, for example, two posterior innominates equal one anterior sacrum.

V. VERTEBRAL LESIONS.

S. SACRUM.

E. EXTREME TREATMENT.

(V.S.E.) 1. SHOULDER AND TRUNK LEVERAGE, FORCING LESION AGAINST KNEE.

USE. For sacrum posterior above.

POSTURE. **Patient** sitting, knees at wall. **Operator** at back.

POSITION. **Operator's** padded knee ($\frac{3}{8}$ -inch felt) at prominence of lesion. **Hands** grasp patient's shoulders from beneath.

ACTION. Pull as if loosening a post in the ground, holding **knee** firm, i. e., pull and oscillate, circle or give figure of eight movement of shoulders, at the same time carrying trunk well back, forcing lesion against **knee**.

(V.S.E.) 2. DIRECT PRESSURE FROM OPERATOR'S WEIGHT.

USE. Posterior sacrum.

POSTURE. **Patient** prone. **Operator** well over patient.

POSITION. **Thenar eminence** with **arm** straight, or **padded knee** or **heel** at lesion.

ACTION. Press slowly, then suddenly increase.

DEGREE. 100 to 200 pounds pressure for strong subject.

(V.S.E.) 2. MODIFIED. (SWING OR ASSIST-
ANT.)

ACTION. Thenar pressure, with knees carried across table by **assistant** or **swing**.

(V.S.E.) 3. SIMILAR TO (V.U.E. 3), or Arm and Trunk Leverage with Reinforced Arm at Lesion. (V.). Except:

POSITION. Patient sits erect, and operator's foot engages chair leg.

(V.S.E.) 4. (V.) Same as (V.L.E. 5). or Flexed Limb and Lower Trunk Leverage with Reinforced Arm at Lesion, Supporting Patient's Weight. (V.)

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

V. VERTEBRAL LESIONS.**C. COCCYX.****I. INDIRECT REMOVAL OF LESIONS.****(V.C.I.) 1. EXTERNAL METHOD.**

Same as (M.C.D. 1), or **Trunk Leverage** with **Hand at External Coccygis**.

USE. Harmless and preferred by many to (V.C.D. 1) or (V.C.E. 1) following.

V. VERTEBRAL LESIONS.**C. COCCYX.****D. DIRECT REMOVAL OF LESION.****(V.C.D.) 1. INTERNAL METHOD.**

POSTURE. **Patient** on side, in **Sim's** position.

POSITION. **Index finger** in rectum, reaching scarcely to second segment of coccyx.

ACTION. Pull downward and spring gently to normal position.

CAUTION: Avoid pressure on ganglion of impar, lying on second segment of coccyx. Second. Treatment during last month of pregnancy, or, third, too frequently if subject to hemorrhoids.

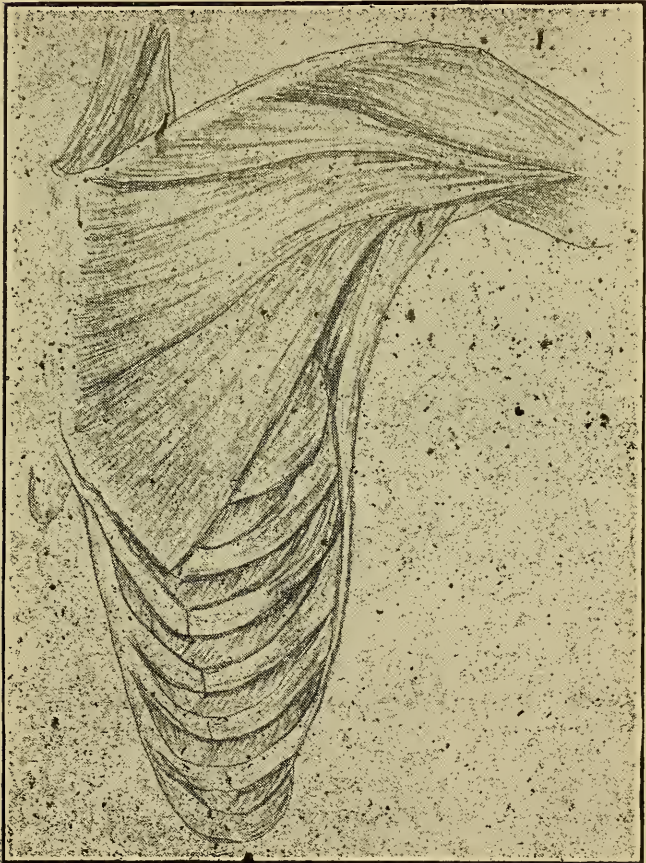
V. VERTEBRAL LESIONS.**C. COCCYX.****E. EXTREME METHOD.****(V.C.E.) 1. COMBINED INTERNAL AND EXTERNAL METHODS.**

POSTURE. **Patient** on side, in **Sim's** position.

POSITION. **Finger one** in rectum, **thenar eminence of hand two** on external coccygius. See (V.C.D. 1) **CAUTION** just preceding.

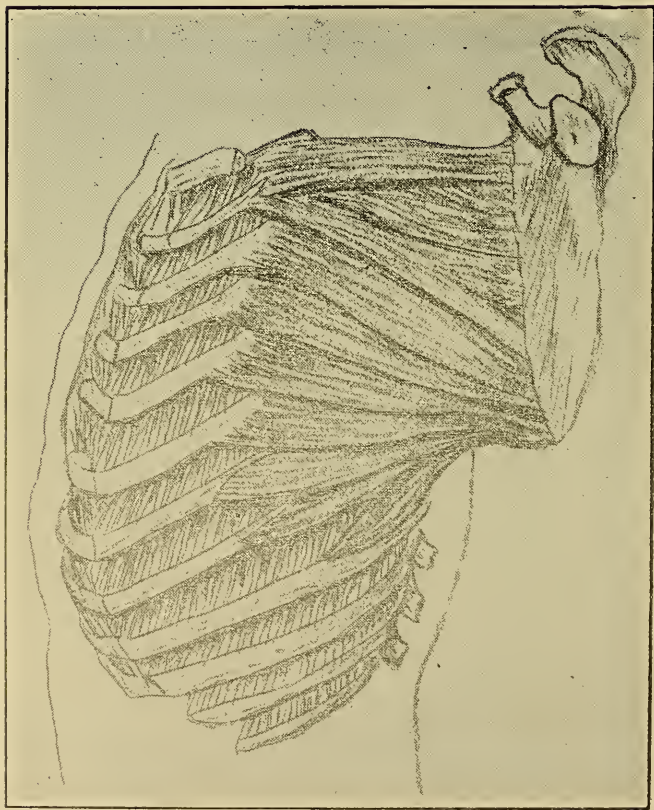
ACTION. **Finger one** pulls and straightens as **hand one** carries muscles up and back.

THE PECTORALIS MAJOR



Notice its origin and insertion. How its contraction would draw arm downward and forward, and in extraordinary respiration with shoulder fixed it would raise true ribs. Showing how elevation of arm aids in anterior muscular traction.

THE SERRATUS MAGNUS
(Sling Muscle)



Showing the value of suspension at axillae to raise shoulder girdle in gaining anterior muscular traction when reducing rib subluxations. Either general or specific.

PECTORALIS MINOR AND SERRATUS MAGNUS
(Used in reducing r.b lesions)



Showing how raising of shoulder girdle, best obtained by suspension, would cause anterior muscular traction.

CLAV. CLAVICAL**S. STERNAL END.****D. DIRECT REMOVAL OF LESION.****E. EXTREME.****(Clav.S.D.) 1. THUMB FULCRUM AND CIRC-
LING ARM LEVERAGE (SITTING).**

USE. For clavical depressed at sternum.

POSTURE. Patient sitting. Operator at back.

POSITION. **Hand-one** reaches over shoulder-one beneath chin. **Thumb** grasping clavical from beneath. **Hand-two** grasps arm-two above elbow.

ACTION. **Hand-two** circles arm toward operator (top of circle) prying clavical over **thumb-one** as a fulcrum.

NOTE.—Raising shoulder, girdle will enable thumb to grasp beneath clavical, if muscular tension binds it down.

Lifting with thumb-one will lessen pain somewhat by keeping it off of first rib.

**(CLAV. S.E.) 1. FINGER FULCRUM & CIRC-
LING ARM LEVERAGE (LYING).**

USE. Less painful and more effective than the preceding.

POSTURE. Patient lying, Operator at side, facing head.

POSITION. Three fingers of **Hand-one** grasp nearest clavical from above. **Hand-two** grasps nearest elbow.

ACTION. **Hand-two** lifts shoulder girdle and circles arm toward head, as **Hand-one** lifts at clavical.

**(CLAV.S.D.) 3. LATERAL TRACTION OF
SHOULDER GIRDLE WITH THENAR
EMINENCE AT LESION.**

USE. For clavical prominent at sternal end.

POSTURE. Patient supine. Operator at side.

POSITION. Thenar eminence of Hand-one at prominence of lesion. Hand-two grasps arm, holding it out to side.

ACTION. Hand-two applies traction laterally, endeavoring to separate shoulder girdle and clavical from sternum, as Hand-one applies direct pressure at prominence of lesion.

CLAV. THE CLAVICAL.

A. ACROMIAL END.

D. DIRECT TREATMENT.

**(CLAV.A.D.) 1. ARM LEVERAGE WITH HAND
AT LESION.**

USE. For slips, anterior or posterior.

NOTE. Compare with tip of corocoid process. If too far posterior, the anterior fibres of deltoid may catch on process during internal rotation and adduction.

POSTURE. Patient sitting or lying.

POSITION. Hand-one at sternal end of clavical. Hand-two grasp arm near elbow.

ACTION. Hand-one aims to force clavical to normal, as hand two swings arm through normal movements, as well as in opposition to pressure at lesion.

THE RIBS

R. THE RIBS.

U. THE UPPER DORSAL REGION.

D. DIRECT TREATMENT.

(R.U.D.) I. HEAD AND NECK LEVERAGE FOR MUSCULAR TRACTION WITH FINGERS AT HEAD OF RIB. (ILLUSTRATED).

USE. For first rib when displaced upward and backward.

POSTURE. Patient sitting on table. Operator at side away from lesion and back of patient.

POSITION. **Hand one** reaches under arm one, or nearest, and across patient's chest and over shoulder two grasping head or neck of first rib; that is, bringing pressure at a point one-half way between vertical and horizontal and anterior and posterior aspects of neck and shoulder. **Hand two** grasps head above and toward lesion of crown.

1st. ACTION. **Hand two** carries head to opposite side to get muscular traction via scaleneii muscles, as **hand one** holds down firmly at head of rib.

2nd. ACTION. **Hand two** circles head forward and to opposite side (lesion side) to relax muscles keeping muscular tension for the first 45 degrees or 8th of the circle.

3rd. ACTION. **Hand one** increases pressure at head of rib to force it into position as **hand two** flexes head to lesion side.

PRINCIPLE is that of muscular traction and direct pressure at lesion.

(R.U.D.) 1. MODIFIED.

POSTURE. Patient lying on back. Operator at side away from lesion.

POSITION and ACTION the same as **(R.U.D.) 1** just preceding, except that **hand one** does not reach under patient's axilla.

**(R.U.D.) 2. HEAD AND NECK LEVERAGE
FOR MUSCULAR TRACTION WITH THE-
NAR EMINENCE AND OPERATOR'S
WEIGHT AT LESION.**

USE. For first rib when displaced upward and backward. For second rib by using thumb instead of thenar eminence of hand one.

POSTURE. Patient on low stool. Operator at back standing on foot stool if necessary to raise operator six or eight inches.

POSITION. Thenar eminence of hand one or thumb one on first rib near its head. Hand two on top of head.

1st. ACTION. Hand two carries head to opposite side for muscular traction as **hand one** holds down firmly near head of rib.

2nd. ACTION. Hand two circles head forward 45 degrees and to opposite side (lesion side) to relax muscles.

3rd. ACTION. Hand one increases pressure moving toward head of rib to force it into position by direct pressure as **hand two** flexes head to lesion side to relax muscles.

Note. Use extraordinary respiration with thumb one at lesion in replacing second rib.

(R.U.D.) 3. HEAD AND NECK LEVERAGE FOR MUSCULAR TRACTION.

USE. For raising first and second ribs.

POSTURE. Patient sitting. Operator at back.

POSITION. Hand one at inferior border of rib.
Hand two at side of head toward lesion.

1st. ACTION. Hand one lifts up on inferior border, hand two forces head to opposite side.

2nd. ACTION. Hand two circles head one-eighth of a circle backward or less.

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

R. THE RIBS.

I. INTER-SCAPULAR REGION. ANGLES.

E. EXTREME REMOVAL OF LESION.

(R.I.E.) I. REINFORCED SHOULDER LEVER- AGE WITH OPERATOR'S KNEE AT LESION—LYING.

USE. High as **second** or **third** rib. As an extreme treatment for large or rigid patients.

POSTURE. Patient on side. Operator at back. If patient is on bed or couch operator sits at same level as patient. Operator's **leg with knee supporting lesion** lies parallel with spine, its **ankle** being supported on the **other knee**.

POSITION. Operator's **hands** clasped with **fingers** interlocking grasp patient's upper elbow holding it directly in front of patient. Operator's **padded knee** ($\frac{3}{8}$ -inch felt) at angle of rib.

ACTION. **Hands** pull on elbow, keeping arm straight to force shoulder girdle backward, as **knee** forces angle up or down as indicated by diagnosis.

CAUTION. Be positive in diagnosis in all direct or extreme treatments, especially where pressure is brought to bear with anything other than the hands.

DEGREE. Robust patients have been given 100 to 150 lbs. pressure without injury, but with benefit.

(R.I.E.) 2. CLASPED ARM AND SHOULDER
LEVERAGE FOR MUSCULAR TRAC-
TION WITH PRESSURE AT
ANGLES. (SWING).

Similar to vertebral and muscular treatment for same region.

USE. Especially easy for vertebrae, muscles and ribs as low as middle dorsal region.

POSTURE. Patient sitting on cloth covered stool or with knees braced to keep from sliding forward and inclining forward at 45 degrees. Arms supported in swing between elbow and shoulder with hands clasping forearms. Operator at side.

POSITION. Hand two reaches across crown or back of patient's head and grasps elbow one or the farthest. Thenar eminence or thumb of hand one at lesion.

ACTION. Hand two swings the patient toward operator as hand one brings pressure to bear at angle of rib.

(R.I.E.) 3. ARM AND SHOULDER LEVERAGE
WITH REINFORCED ARM AT ANGLES.
(V) (A FLYING WEDGE TREATMENT).

USE. This is believed to be one of the most effective treatment for ribs whose angles lie in the interscapular region.

POSTURE. Patient on side. Operator at back facing head with foot one or farthest on low stool if needed.

POSITION. Patient's elbow two, or the upper, lies inside of elbow two of operator, and hand two

grasps wrist two of patient. Thenar eminence of **hand one** at angle of rib with elbow one reinforced by knee one and foot one, and foot one on stool.

Note. Grasp patient firmly so that there will be good contact, and **no lost motion** between operator and lesion.

1st. ACTION. **Arm two** draws patient to

2nd. POSTURE. Or lying nearly supine with shoulder overhanging edge of table.

2nd. ACTION. **Hand one** applies pressure at angle of rib from below upward. **Hand one** with its reinforcements is also aided thus: The operator's **foot** is flexed to raise it and **force leg** and **arm** against the lesion. This saves the operator's back and ribs provided **trunk** is kept straight. Or operator's **knee** is swung inward.

CAUTION. Do not allow patient's arm to be drawn down parallel with side but keep it straight in front so as to force shoulder directly in opposition to pressure at lesion.

(R.I.E.) 3. MODIFIED. WITH ANTERIOR MUSCULAR TRACTION.

The same as (R.I.E.) 3 just preceding except:

POSITION. Patient's upper arm is thrown above head and held down by **operator's head** near axilla. **Hand two** holds down shoulder one, or farthest.

CAUTION. Anterior dislocations of humerus are possible in giving very extreme pressure.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
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USE	3
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4 or, b	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

R. RIB TREATMENT.**D. MID-DORSAL OR TYPICAL RIBS.****G. GENERAL TREATMENT.****(R.D.G.) 1. ROCKING HAND AT ANGLES WITH PATIENT'S WEIGHT AND CIRCLING ARM LEVERAGE OPPOSING.**

USE. As a mild treatment for bedfast patients, may be given as a direct, or specific treatment.

POSTURE. Patient supine on table, bed or couch. Operator at side.

POSITION. Fingers of hand one at angles of ribs, hands crossed with hand one beneath. Hand two grasps patient's forearm.

ACTION. Hand one rocks on knuckles as a fulcrum or lifts finger tips to force angles forward. Hand two lifts and pulls nearest arm toward head of patient, and bears down in opposition to hand one.

PRINCIPLE is that of muscular traction by way of the pectoral muscles and separation of articulations at spine.

(R.D.G.) 2. ROCKING OR LIFTING, BOTH HANDS AT ANGLES WITH PATIENT'S WEIGHT OPPOSING.

POSTURE. Patient supine. Operator at side facing head.

POSITION. Hands under patient from both sides. Finger tips support angles of ribs.

ACTION. Rock or lift at angles.

**(R.D.G.) 3. OPERATOR'S ARM LEVERAGE
WITH SHOULDER FULCRUM AND
PATIENT'S WEIGHT OPPOSING.**

USE. A mild treatment on table with little strain on operator. Not easily adapted to bed.

POSTURE. Patient supine. Operator at head.

POSITION. Operators forearms over patient's shoulders with hands supinated underneath patient, finger tips supporting angles of ribs.

ACTION. Lift angles by prying over patient's shoulders as a fulcrum together with lifting.

**(R.D.G.) 4. ARM LEVERAGE FOR MUSCULAR
TRACTION WITH FINGERS AT ANGLES:
SITTING.**

USE. For deepening a flat or tubercular chest by raising ribs that have too steep a slant or masses of ribs that are dragged down or fallen.

POSTURE. Patient sitting on table or high stool. Operator in front.

POSITION. Finger tips of hand one grasp angles of ribs. Hand two grasps arm near shoulder.

ACTION. Hand one pulls angles of ribs away from spine and forward. Hand two rotates patient's arm upward and backward opposing hand one.

**(R.D.G.) 4. MODIFIED ARM LEVERAGE FOR
MUSCULAR TRACTION WITH FIN-
GERS AT ANGLES: LYING.**

Posture. Patient on side. Operator in front.

POSITION and ACTION otherwise the same as (R.D.G. 4) just preceding.

(R.D.G.) 5. ARM LEVERAGE WITH THUMB OR THENAR EMINENCE AT ANGLES.

POSTURE. Patient sitting. Operator at back, sitting or standing.

POSITION. Thumb or thenar eminence of hand one at angles. Hand two at upper arm or shoulder.

ACTION. Hand one forces rib outward and forward. Hand two rotates arm or shoulder or pulls them in opposition to hand one.

(R.D.G.) 6. ELBOW AND SHOULDER LEVERAGE WITH THENAR EMINENCE AT ANGLES AND OPERATOR'S WEIGHT AIDING.

USE. Easy on operator and effective as a general, or specific treatment.

POSTURE. Patient prone. Operator at side facing foot of table.

1st. POSITION. Operator's hand two grasps patient's elbow one, or farthest, and operator's elbow two under patient's shoulder one. Hand one, or thenar eminence at angle of rib.

1st. ACTION. Elbow two lifts patient's shoulders to

2nd. POSITION. Inclining trunk toward operator.

2nd. ACTION. Hand-one presses downward at angles with operator's weight aiding. Hand two opposes or lifts at shoulder girdle.

PRINCIPLE. Anterior muscular traction by way of shoulder girdle with separation of the spinal articulation.

(R.D.G.) 6. MODIFIED: FOR LOW TABLE.

The same as **(R.D.G.) 6** just preceding, except:

POSITION. Operator's **hand two** grasps patient's shoulder or arm high up. **Hand two** at angles as above.

ACTION. **Hand one** brings pressure at angles. **Hand two** opposes at shoulder.

PRINCIPLE. The same as **(R.D.G.) 6** just preceding.

(R.D.G.) 7. ARM AND HIP LEVERAGE WITH KNEE AT ANGLES AND PATIENT'S WEIGHT AIDING.

USE. For patients not too supple. Easy on operator.

1st. POSTURE. Patient on side. Operator at back.

POSITION. Operator's **elbow one** or the one nearest head of table lies inside the patient's upper elbow, or elbow two. Operator's **hand one** grasping patients' hand two. Operator's **hand two** grasps crest of illium or anterior superior spine. Operator's **knee** on table so that internal condyle brings pressure at angles of ribs as:

1st. ACTION. **Hands** rock patient backward toward operator to

2nd. POSTURE. Patient's trunk inclined to about thirty degrees from side to side, so as to bow trunk over **knee** as a fulcrum.

2nd. ACTION. Break patient across **knee**, and also raise **knee** by prying operator's **leg** over edge of **table** as a fulcrum.

**(R.D.G.) 7. MODIFIED, OR ARM LEVERAGE
WITH KNEE AT ANGLES AND PATIENT'S
WEIGHT REINFORCED.**

USE. For upper ribs, or inter scapular region also.

POSTURE. Patient supine. Operator at side, near head.

POSITION. Similar to (R.D.G. 7) just preceding, except: Hand one changes to grasp arm two, or upper arm. Hand two changes to farther shoulder.

ACTION. Hand two holds shoulder down, Hand one uses arm and shoulder as leverage to bring pressure of knee at angles of ribs as in (R.D.G. 7) just preceding.

**(R.D.G.) 8. LOWERING STERNAL END BY
FORCED EXHALATIONS WITH OPER-
ATOR'S WEIGHT AIDING.**

USE. For barrel shaped, or asmatic chest, bulging cartilages or articulation of manubrium and gladiolus.

POSTURE. Patient supine. Operator at head.

1st. POSITION. Patient's elbows pointing toward operator. Operator's hands grasping patient's elbows.

ACTION. 1st. Patient inhale as operator applies traction; to exaggerate.

2nd. Patient exhales as operator throws elbows over chest, and presses patient's arms to force ribs down or take

2nd. POSITION. Operator loosens hold at elbows and presses ribs or protrusion with direct pressure of hands during exhalation.

DEGREE. Operator may force the breath pretty well out of patient so that they gasp to a reasonable extent. Given not oftener than once in one or two weeks.

Note. Bulging cartilages have been reduced where it required weeks for soreness to disappear, but chronic symptoms disappeared also.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	I
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.**SYMBOL. MECHANICAL PRINCIPLE.**

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
.....	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE	15
..... acts as a fulcrum with	16
as the power and.....as the weight	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

R. THE RIBS.

D. MID-DORSAL, OR TYPICAL RIBS.

I. INDIRECT TREATMENT.

(R.D.I.) I. HIP AND SHOULDER LEVERAGE FOR TRUNK ROTATION AND REPLACEMENT BY MUSCULAR TRACTION.

USE. For the typical and lower ribs, intercostal muscles and quadratus lumborum.

POSTURE. Patient on side. Operator at side facing patient.

POSITION. Hand one on crest of illium. Hand two grasps patients' arm.

ACTION. 1st. Patient allows hip to rock backward.

2nd. Operator applies traction at right angles to ribs.

(R.D.I.) I. MODIFIED: WINDLASS PRINCIPLE

POSTURE. Patient on side. Operator in front with side to patient, facing foot. Patient's hip inclining forward.

POSITION. Operator's forearm one lies back of operator's waist or hip with palm outward, and with hand one of the same hand, grasping patient's arm above elbow. Operator's hand two on crest of illium. Place operator's great trochanter or shaft of femur in patient's axilla.

ACTION. Same as (R.D.I.) 1 just preceding, except operator rotates his own body from head of table so as to wind patient's arm around, or separate shoulder girdle from hips, as if on a windlass while opposing with hand two at illium.

Note. To make it less painful at axilla or pectoral muscle, get great trochanter well up into patient's axilla and rotate and brace back from hips as above.

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

R. THE RIBS.**D. MID-DORSAL, OR TYPICAL RIBS.****D. DIRECT REMOVAL OF LESION.****(R.D.D.) 1. ARM AND SHOULDER LEVERAGE
WITH THUMB AT LESION.**

POSTURE. **Patient** sitting. **Operator** in front and to side away from lesion.

POSITION. **Hand one** passes back of body of patient, **thumb one** reaching angles of ribs of opposite side. **Hand two** grasps arm one, on lesion side.

ACTION. **Hand two** rotates arm backward toward head as **thumb one** brings pressure on angles forcing them away from spine both laterally and anteriorly.

**(R.D.D.) 2. COMBINED ANGLE AND STERNAL
PRESSURE FOR ADJUSTMENT DURING
DEEP RESPIRATION.**

USE. For raising or lowering either end of ribs. As a specific treatment.

POSTURE. **Patient** on side. **Operator** at back, or prone with operator at side.

POSITION. **Hand one** at angle of rib, and **hand two** at sternal end.

ACTION (A) If upper border is prominent and anterior end up:

1st. Have **patient** inhale.

2nd. Exhale as pressure is applied carrying anterior end down and angle up.

(B) If lower border is prominent and anterior end down:

1st. Apply pressure upward at sternal end and downward, or toward foot, at angle during inhalation or normal breathing.

Note. Better results are sometimes gotten by first exaggerating the lesion or throwing it still farther from the normal position.

(R.D.D.) 2. MODIFIED: FOR SITTING POSTURE.

POSTURE. Patient sitting on table or high stool. Operator in front and to same side as lesion.

POSITION. Hand one at angle of ribs. Hand two at anterior end.

ACTION. (A) When lower border is prominent, and sternal end is lowered.

(a) Aim to swing or rotate patient's body back and to opposite side from lesion, operator's chin and head aiding, and (b) apply pressure while this side of thorax is convex.

(B) When upper border is prominent, and sternal end up:

(a) Swing body forward and to opposite side.

(b) Force to normal side during exhalation.

(R.D.D.) 3. ARM LEVERAGE FOR LATERAL
PECTORAL TRACTION WITH DIRECT
PRESSURE AT LESION.

USE. For cartilages or sternal ends of ribs if bulged.

POSTURE. Patient supine. Operator at side facing head.

POSITION. Thenar eminence of hand one, or the nearest, on lesion. Hand two grasps nearest arm above elbow as arm lies horizontal and directly away from patient's body.

ACTION. Hand one applies direct pressure at protrusion, and hand two applies lateral traction.

PRINCIPLE is that of traction by way of the pectoral muscles.

(R.D.D.) 4. SHOULDER LEVERAGE WITH
PRESSURE AT ANGLES AND ANTERIOR
MUSCULAR TRACTION WITH PA-
TIENT'S WEIGHT ADDING (SWING).

USE. As a general treatment preparatory to specific work. For adjusting single slips or raising groups of ribs either slipped, lapped or drifted downward enmasse from the third rib down.

POSTURE. Patient standing or kneeling on pad with arms supported in swing at axillae. Operator at back. Straps of swing crossed.

POSITION. Thenar eminence of hand one at angle or neck of rib. Hand two grasping shoulder one, or opposite, from above.

PRINCIPLE. The crossed straps increase the vertical traction on shoulder girdle, thus lifting the anterior ends of ribs as a **first-class lever**, suspending them by the pectorals, serratus magnus, intercostals, etc. Pressure at neck or angle acts as a **third-class lever** disengaging vertebral end or forces from lodgment between transverse processes.

POSITION. Operator's **thenar eminence** of **hand one** at angle of rib. Operator's **elbow one** may be reinforced by operator's **innominate**. **Hand two** grasps shoulder.

ACTION. Carry patient diagonally forward toward lesion side with **hand one**. Retard or oppose with **hand two** at shoulder.

NOTE. If **swing** is suspended from one hook raise or shorten lesion side of swing. If **swing** is supported from two hooks straps may be spread or crossed at different angles by separating hooks at ceiling to get increased traction on lesion side or may be shortened on lesion side as above mentioned.

DEGREE. Pressure may be varied according to slack in swing at beginning of treatment. The more tense the straps the easier patient will swing from floor. The treatment is more effective if swing is low enough so that patient's feet drag across floor.

CAUTION. Don't allow patient to voluntarily lift feet from floor.

(R.D.D.) 5. STERNAL END LEVERAGE WITH
KNEE AT ANGLES AND ANTERIOR MUS-
CULAR TRACTION.

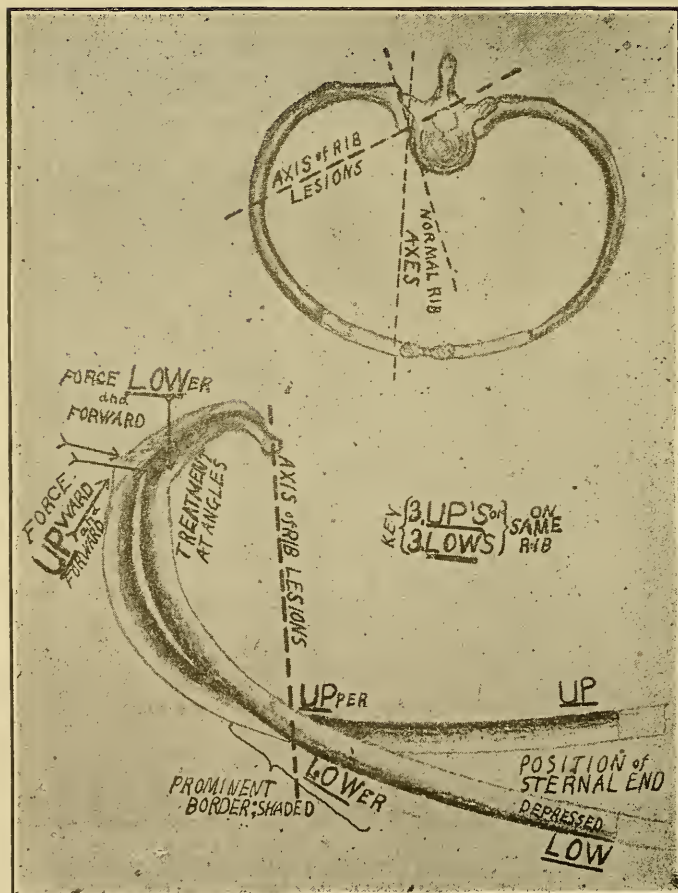
POSTURE. Patient sitting on stool. Operator at back, sitting or standing.

POSITION. Hand one reaches around patient grasping sternal end of rib. Padded knee ($\frac{3}{8}$ -inch felt) at angle. Hand two grasps arm at or above elbow.

ACTION. 1st. Patient inhales as operator raises elbow above patient's head.

2nd. Patient exhales as operator applies pressure at each end of rib, forcing them toward normal.

PRINCIPLE. Pressure at ends of the rib is applied on the *see saw* principle, one end being raised and the other lowered with muscular traction aiding.



(R.D.D.) 6. ANGLE PRESSURE WITH SHOULDER LEVERAGE OPPOSING.

POSTURE. Patient on side. Operator in front.

POSITION. Thenar or hypothenar eminence of hand one at shaft or angle of prominent rib. Hand two grasps arm near shoulder girdle or elbow holding it in front of patient and pointing directly forward so that pressure will force shoulder backward.

ACTION. Hand one applies forcible pressure as hand two opposes, or forces shoulder backward in opposition.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.**SYMBOL. MECHANICAL PRINCIPLE.**

(.....)	1
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DEGREE	18
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CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

R. THE RIBS.**D. MID-DORSAL OR TYPICAL RIBS.****E. EXTREME REMOVAL OF LESION.****(R.D.E.) 1. BOTH SHOULDERS FOR UPPER TRUNK LEVERAGE WITH KNEE AT LESION.**

USE. Only for very large or rigid patients.

POSTURE. **Patient** sitting on stool. **Operator** sitting on table at back.

POSITION. **Operator's** knee padded ($\frac{3}{8}$ -inch felt) at angle of prominent rib or rib showing evidence of lesion. **Hand one** on shoulder of same side. **Hand two** on opposite shoulder.

ACTION. **Hands** pry patient backward with lesion against **knee** as a fulcrum, forcing rib upward or downward as indicated by diagnosis.

(R.D.E.) 2. SWINGING LIMB AND PELVIC LEVERAGE WITH OPERATOR'S WEIGHT AT ANGLES, FORCING ROTATION. (SWING).

USE. From sixth rib down.

POSTURE. **Patient** on face, lower limbs in swing, supported above patella. Lesion side has knee raised 5 to 8 inches higher than the other knee with swing well up toward hip to keep that side of pelvis from table. **Operator** at opposite side of table.

POSITION. Heel or **thenar eminence** of **hand one** at angles of ribs. **Hand two** grasps farther limb or swing just above it.

ACTION. Hand one applies pressure as hand two swings patient toward operator.

PRINCIPLE. Is that of lateral and longitudinal traction.

**(R.D.E.) 3. SHOULDER AND TRUNK LEVER-
AGE WITH REINFORCED ARM AT
ANGLES (A FLYING WEDGE
TREATMENT).**

USE. For heavy or rigid patients if vertebral end of rib is lowered. Used as high as fifth or sixth ribs.

POSTURE. Patient on stool with knees against wall. Operator at back facing lesion side.

POSITION. Thenar eminence of hand one at angle of rib reinforced by elbow, knee and foot. Foot on low stool if necessary. Hand two grasps patient's elbow one, or the farthest. Operator's axilla two grasps shoulder one or shoulder two preferred.

ACTION. Hand two carries trunk backward holding elbow so as to point forward from patient. Hand one and its reinforcements apply pressure between angle and tubercle.

PRINCIPLE is that of putting the ligaments of the articulations on the stretch and suddenly increase pressure to spring rib back to normal.

**(R.D.E.) 4. ARM AND SHOULDER LEVERAGE
WITH PRESSURE AT ANGLES AND MUS-
CULAR TRACTION WITH PATIENT'S
WEIGHT AIDING (SWING).**

USE. From third rib down, especially for patients taller than operator. Where extreme muscular traction is desired.

Similar to (R.D.D. 4) the seventh preceding.

POSTURE. Patient kneeling on pad on floor. Arms clasped above head, and supported in swing at cubital fossae. Operator at back, and away from lesion side.

(R.D.E.) 4. MODIFIED: SUPINE (ASSISTANT).

Similar to (R. D. E.) 4 just preceding, except:

POSTURE. Patient supine; assistant at head applying traction on arm. Operator at side.

ACTION. Motion of body is limited, but pressure at lesion is increased, that is in comparison to (R.D.E. 4) just preceding.

(R.D.E.) 4. MODIFIED. ON SIDE (ASSISTANT).

Similar to (R.D.E. 4) and (R.D.E. 4 modified), just preceding, except:

POSTURE. Patient on side with lesion up; assistant at head applying traction on arm. Operator in front or back.

POSITION and ACTION the same.

NOTE. In the last two one of operator's hands may apply pressure at angles, and the other at sternal end In direction indicated.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
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PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

R. THE RIBS.**L. THE LOWER OR FLOATING RIBS.****D. DIRECT TREATMENT.****(R.L.D.) 1. ANTERIOR END AND CRANK
LEVERAGE WITH RESPIRATION.**

POSTURE. Patient on side. Operator at side of table in front or back.

POSITION. Fingers or thumb of hand one at middle of rib or slightly toward spine. Hand two at anterior end.

PRINCIPLE. Consider these ribs as shaped like a new moon and moving as a bit brace, that is consisting of a middle and two extremities which rotate on their longitudinal axis. The head remains stationary as a rule; the middle and anterior end being movable are used as levers to rotate them to normal position.

ACTION. Hand one carries rib upward or downward toward normal as hand two carries anterior end in opposite direction during respiration.

**(R.L.D.) 2. ANTERIOR END AND CRANK
LEVERAGE WITH MUSCULAR TRAC-
TION ABOVE LESION.**

USE. To lower middle and raise tips of 11th and 12th ribs.

POSTURE. Patient on side. Operator in front.

POSITION. Index finger of hand one at sternal end of rib and thumb at middle of upper border. Hand two grasps arm of same side.

ACTION. Thumb and finger force rib to normal as hand two draws arm upward or toward patient's head.

(R.L.D.) 3. DIRECT PRESSURE WITH MUSCULAR TRACTION BY WAY OF HIP LEVERAGE.

USE. To raise 11th and 12th ribs, or sometimes given following muscular stretching of this region.

POSTURE. **Patient** on side. **Operator** at back and toward foot.

POSITION. Carpal or metacarpal bones of thumb one at middle of rib. Hand two at anterior superior spine or crest of illium.

ACTION. Hand one forces rib up and at right angles to their direction as hand two opposes at illium.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18

THE VISCERA

In the direct treatment of the viscera if we adhere to strictly Osteopathic principles, which we should, we are to avoid gouging and punching the abdomen as Dr. Still puts it, but on the other hand as he traces some diseases to the **misplacement of viscera** and recommends their adjustment we may perhaps resort to the following **CLASSES OF TREATMENT**:

First for the **REPLACEMENT OF ORGANS**; **second**, for the **REMOVAL OF ABNORMAL ACCUMULATION OF THEIR CONTENTS**, and **third** the **LIFTING OF NEW GROWTHS**.

In replacing viscera and lifting new growths our work is simply to **combat the force of gravity** or its effects, as a rule. For this reason we will find our work limited to the lower two regions, or the pelvic and abdominal cavities. Nature having protected the other cavities from surgical and Osteopathic invasion by the bony walls. Often the **lifting of viscera or tumors will only be necessary** after the physiological periods of congestion. Though in others it may be after being on feet for some time, or after sudden jolts, or jarring, or if patient is in a much weakened condition.

The **Emptying of Viscera** may be indicated if there is an abnormal density of the contents causing obstruction to the normal flow through the same. For example; biliary calculi or channeled impaction.

There may be conditions where emptying fluid contents in the stomach are indicated as man might easily take something which nature never intended to be there.

But as to such organs as the liver and spleen God has provided them with a rythm that a normal nerve and blood supply will regulate.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
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2d	9
ACTION	10
I or, a	11
.....	12
PRINCIPLE.....acts as a ... class lever.....	15
DEGREE	18
CAUTION	20
NOTE	22

The GENU-PECTORAL, OR KNEE CHEST POSTURE is taken as follows:

Patient on table, bed or couch.

1st. Have patient get on knees.

2nd. Lower shoulder until they rest on table, and far enough from knee so that thighs remain perpendicular. Or:

1st. Have patient lie on face, or prone.

2nd. Raise hips so that thighs will be perpendicular.

Observe the Following Points:

1. Patient's hands must be **underneath chest** with **elbows far out to side**.

2. **Head turned** to one side. The body will then **incline from hips to shoulders** with the steepest slant possible.

3. The **body is then relaxed** so as to sag and relax the abdominal muscles.

4. Have **slack in clothing** over abdomen.

PRINCIPLE. The uterus hangs as a **pendulum** normally when in this posture, unless held by adhesions, bony prominences, new growths or impactions. Other abdominal viscera tend to replace themselves with the aid of gravity.

R. REPLACING.**V. THE VISCERA.****Cae. THE CAECUM.****(R.V.Cae.)**

POSTURE. **Patient** on back, knees flexed.
Operator at right of patient.

POSITION. Operator's **fingers** of **both** hands meet at right angles, forming a kind of a hoe with which to draw the caecum up and out of the pelvis into the illiac fossae.

NOTE. Remember that as the colon descends it glides into pelvis, like the drawing together of the heels of a horseshoe.

ACTION. Force **fingers** well downward and aim to rake or manipulate the caecum back to normal.

CAUTION. Beware of **abscess formation** or **too rough** digging in with finger tips. Also see (R.V.Tr.Col.) following, or Transverse Colon.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

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.....	12
PRINCIPLE	15
DEGREE	18

R. REPLACING.**V. THE VISCERA.****Sig. THE SIGMOID.**

(R.V.Sig.) (See R.V.Tr.Col.)

Treatment the same as (R.V.Cae.) just preceding, except on opposite side. Also work sigmoid upward toward right.

R.V.Tr.Col.**THE TRANSVERSE COLON.**

POSTURE. The genu-pectoral, or knee chest.

POSITION. **Operator** stands at side, facing feet, **both hands** at patient's abdomen, reaching around patient from each side. **Finger tips** meet, and **index fingers**, reinforced by the **rest of the hand**, aim to rake or manipulate bowel into position.

ACTION. **Operator** endeavors to lift or force it to normal position with the aid of **gravity**.

NOTE. The rest of colon may be lifted to normal by same treatment, or with only **one hand** at caecum or sigmoid. In fact, this is the best way of raising them or the bowel as a whole if patient is able to take this posture.

R.V.Kid. KIDNEY.

POSTURE. **Patient** sits. **Operator** at side or back.

POSITION. A floating kidney is perhaps best palpitated in thin subjects by grasping back and front with **one hand** in or below region where it is normally found.

ACTION. A deep breath or a cough will aid you to find it or perhaps cause it to slip through your hands.

SECOND POSTURE. This same maneuver in the genu-pectoral or knee chest posture may aid in replacing, though absence of fat and strength of supports may fail to anchor it for some time.

NOTE: This replacement of organs is, of course, secondary in a great majority of cases. The supports must be strengthened by releasing the blood and nerve force supplying the part.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

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POSTURE Patient	4
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R. REPLACING.**V. THE VISCERA.****U. RETRO-UTERUS IN RETRO-DIS-
PLACEMENTS.****R.V.U. Retro.**

USE. For treatment externally without exposure.

POSTURE. The genu-pectoral, or knee chest. **Operator** at side, facing foot of table.

POSTURE. **Hands** or finger tips reach around patient's body, meeting beneath, with **index fingers reinforced** by **rest of hand** reach well under crest of pubis.

ACTION. First. Aim to carry uterus up out of true pelvis.

ACTION. Second. Jar pelvis from side to side.

ACTION. Third. Repeat action one.

ACTION. Fourth. Then repeat action two.

CAUTION. **Don't** pound against it, but get firmly against hips, so that there is no lost motion.

NOTE: A **rubber tube** inserted into vagina by patient may aid without exposure by **admitting air** or ballooning, or operator, by spreading buttox or inserting **finger**, may **admit air**. Inspiration followed by deep expiration will aid.

Third. Lie on side at finish.

NOTE: In **knee chest posture** the uterus hangs as a pendulum and the force of gravity aids. By lying on the side after the knee chest posture, the intestines seek the lowest level first and thus help support the uterus.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

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..... Operator	5
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1st POSITION Hand one	7
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2d	9
ACTION	10
Consecutively. Simultaneously.	
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PRINCIPLE.....acts as a ... class lever.....	15
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as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

R.V.Ova. REPLACING VISCERA, the OVARIES.

PRINCIPLE. Ovaries are replaced and congestion and inflammation reduced via broad ligaments and uterine replacements.

R. REPLACING.**V. THE VISCERA.****U.Ant. UTERUS in ANTERIOR DISPLACEMENTS.****R.V.U.Ant. 1. ABDOMINAL MANIPULATION WITH GRAVITY AIDING.**

POSTURE. Patient on back. Hips raised on thick pillows. Feet on low stool. Knees and thighs flexed. Operator facing feet.

ACTION. Hands aim to rake uterus from under pubis.

NOTE: In most cases symptoms guide to diagnosis, and a great deal of examining and local treatment may be dispensed with.

(R.V.U.) ANT. 2. REPLACING UTERUS IN ANTEVERSION.

ABDOMINAL MANIPULATION AND PELVIC JARRING WITH GRAVITY AIDING.
(SWING.)

FIRST POSTURE. **Patient** on back.

SECOND POSTURE. As **patient** raises hips **operator** places a **stool** about 8 inches high underneath them.

THIRD POSTURE. Hook **patient's** knees over **hooks** of **swing**, having them well up.

FOURTH POSTURE. Remove **stool**, leaving **patient's** hips suspended.

FIFTH POSTURE. Slide **patient** toward **swing** a little to flex knees and relax abdomen. **Operator** facing foot of table.

FIRST POSITION. **Finger tips** meet, with little **fingers** resting on abdomen above pubis.

ACTION. First. **Rake** uterus from pubis. Second. **Jar** pelvis. Third. **Repeat** first action. Fourth. **Jar** pelvis again.

SECOND POSITION (previous to action second) is with **operator's hands** firmly against pelvis, **operator** facing head.

NOTE: TO GET PATIENT LOWERED TO TABLE: First. Put **stool** under hips. Second. **Take down** knees. Third. Remove **stool**, or just the reverse of suspending **patient**.

Burrow's Gynecological Sling accomplishes about the same result, except limbs are not flexed at knees.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
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USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
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2d	9
ACTION	10
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as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

E. EMPTYING.**V. THE VISCERA.****Kid. THE KIDNEY.****(E.V.Kid.) DIRECT PRESSURE FOR SEPARATION AND DRAINING.**

NOTE: As the kidneys are sometimes approximated in relation to the spinal column and each other the upper portion of the ureters may become compressed and the drainage interfered with.

POSTURE. Patient supine, with knees flexed.
Operator at side.

POSITION. **Hand one** over kidney, near median line. **Hand two** reinforces it.

ACTION. Aim to force each kidney backward and away from median line.

PRINCIPLE. The spinal column acting as a wedge between the pair of kidneys, or as an inclined plane with each.

E.V.Stom. THE STOMACH.

USE. Masses of undigested or irritating contents can often be broken up by direct manipulation after drinking hot water.

E.V.Stom. 1. FLUID or SEMI-FLUID CONTENTS MAY BE REMOVED AS FOLLOWS:

POSTURE. Patient on back, with knees flexed.
Operator at right side.

FIRST POSITION. **Hand two**, or left, under opposite ribs at back or angles reaching over patient's body. **Hand one**, or right, is forced under anterior end of ribs and costal cartilages.

ACTION. (a) **Hand two** lifts near angles to raise anterior end of ribs; this enables **hand one** to slip farther beneath, using ulnar side of **hand one** as a **hoe**.

SECOND POSITION. Reinforce with **hand two**.

ACTION. **Draw** toward pylorus with slow, deep pressure.

Second. **Lying on right side** aids natural emptying.

Third. **Tickling facues** with middle finger, palm outward to produce vomiting.

E.V.Com. B. Duct. COMMON BILE DUCT.

POSTURE. **Patient** supine, with knees flexed. **Operator** at side.

POSITION. **Finger tips** reinforced begin near exit of duct, remembering that its course is that of a reversed letter **S**, beginning at tip of ninth rib and circling from one to one and a half inches below the umbilicus and to the right.

ACTION. First. **Beginning near exit**, press deeply and slowly toward exit one to three times.

Second. Then **begin about one-half inch farther up** and repeat.

Third. **Continue up** to tip of ninth rib, following the course of the duct. If enlarged it may sometimes be felt; if so, and tender, with symptoms of obstruction or gall stones, watch stools.

CAUTION. Beware of undue irritation. Perhaps once in a **week or ten days** for a few treatments will be enough with spinal and rib treatment.

EMPTYING VISCERA. THE RECTUM.**E.V.Rec. 1.**

POSTURE. Home Treatment. Patient leaning far forward, so that shoulders nearly rest on knees when at stool.

PRINCIPLE. This inhibits and relaxes the sphincters if they are abnormally contracted and often accomplishes what straining will not do.

E.V.Rec. 2.

USE. Aid to infants, especially if rectum is dilated by hard or too large stools, or by too many or too large injections.

POSTURE. Patient sitting inclined far forward.

ACTION. Direct pressure below coccyx, or deep pressure through bladder.

E.V.U. UTERUS.

USE. Retained menses and membranes, etc., may be result of displacements.

POSTURE. Knee chest, or genu-pectoral posture.

POSITION. One or both hands above pubic arch.

ACTION. Manipulation and jarring or other methods of replacement may relieve the trouble.

(E.V.Col.) EMPTYING VISCERA. The COLON.

POSTURE. Patient supine, with knees flexed. Operator at side.

POSITION. Finger tips reinforced. Begin at sigmoid if impaction is felt.

ACTION. First. Aim to **work in the direction of peristalsis** with deep, slow pressure.

Second. **Finger tips reinforced beginning back an inch** or so after from one to three trials in one place.

PRINCIPLE. Same as manipulating common bile duct just preceding. Follow back as far as there are evidences of a tumor, but don't use it as an ordinary method of moving the bowels. Find spinal lesions.

NOTE: Watch the stools afterwards for small lumps or balls, perhaps different in color.

DEGREE. Don't repeat every treatment if given very strongly, as inflammation may be aggravated.

A **high enema** or **oil enema** may aid if retained during manipulation, or to a less degree at other times.

Rather than give medicine for constipation, hot water, raw egg or fruit early before breakfast, or cold water drank regularly every morning, may be given. Thompson (the authority on dietetics) says that nearly all cases of constipation can be cured by diet, leaf vegetables being the best. Fruits are fine. Cream is a natural laxative for infants. Oily foods, like ice cream or olive oil, as salad dressing.

THE HIGH RECTAL ENEMA may be given with the ordinary short tube if patient is given the Trendlenburg posture as in (R. V. U. ante) 2. Using the suspension hooks, a sling or swing.

Be Osteopathic and keep far from the danger line of drugs.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	I
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
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PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
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NOTE	22
.....	23
.....	24

ORGANS OF SPECIAL SENSE

PALLIATIVE TREATMENTS.

THE EYE.

1. RELAXING TISSUES OF ORBIT.

POSTURE. Patient lying. Operator at head.

POSITION AND ACTION. Outside of **tip** of **little finger** works above and below and around **eyeball** from side to side with short strokes, about **one-half inch**.

2. STRETCHING LIDS.

POSITION. **Thumb one** on nose, well up; **thumb two** across to opposite of eye, beyond orbit on temple.

ACTION. Carry skin and muscles apart, thus stretching lids across eyeball.

3. STIMULATE CILIARY GANGLION.

POSITION. **Finger two** of hand **one** on eyelid.

ACTION. **Finger two** of hand **two** taps **finger two** of hand **one** lightly and rapidly.

4. GRANULATED LIDS.

POSTURE. Patient sitting or lying.

POSITION. **Little finger** or **lead pencil** on upper eyelid.

ACTION. (1) Turn eyelid back over **little finger** or **lead pencil**.

(2) Rub gently between fingers to break up granules, using **vaseline** on fingers.

5. STYS.

Pull hair out from center.

6. PTERYGIUM.

Finger nail glides like a skate across the cornea capillaries feeding it, thus compressing or cutting off the nutrition to the growth.

7. STIMULATE FIFTH NERVE.

By pressure at various points of exit. (See illustrations in Gray's Anatomy.)

EAR.

TO REMOVE WAX.

(1) Try ear spoon, prying upward to loosen slug deposited on floor of external auditory meatus.

CAUTION. Do not push the cylindrical or semi-cylindrical slug of wax too hard against ear drum.

(2) Resort to ear syringe and warm water, or:

(3) Glycerine or warm sweet oil dropped in and plugged with cotton at nights to soften.

(4) Or have patient form habit of pouring water into the ears in the morning.

NOTE: If removing wax leaves the ears too sensitive to sound have patient plug the ears with cotton, removing it by degrees, taking a week or so.

NOSE.**LOOSENING SECRECTIONS.**

POSITION. Tips of fingers and thumb two compressing nostrils.

ACTION (1) **Rotary oscillation** over alae, or circling to free secretion.

(2) **Pressure** high up on bridge with thumbs.

(3) **Body weight** on forehead.

(4) **Breathing Exercise:**

a. **Inhale**—Thumb on one nostril.

b. **Puff**—Thumbs and fingers on both nostrils.

c. **Exhale**—Finger on other nostril.

Repeat—Inhale, Puff, Exhale, etc.

PRINCIPLE. The air pressure in puffing affects terminal branch of the fifth nerve to nasal cavity.

Babies' noses can be **shaped**, if too flat, by pinching bridge soon after birth. Very little pressure is needed, however.

TREATMENT OF TONSILS.

USE. (1) To induce vomiting, to empty stomach, or,

(2) Dislodge fish bones or foreign bodies in the oesophagus, or,

(3) In treating tonsillitis locally.

POSTURE. **Patient** sitting on stool or table.

POSITION. Insert **middle finger** after antiseptic cleanliness, or have patient do so. Have **palm** open outward on affected side.

ACTION. Glide over and around on tonsil, if needed.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	I
.....	2
USE	3
POSTURE Patient	4
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2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15
DEGREE	18

THE UPPER LIMB.

See Rules 1 to 5 of The Lower Limb and the tables accompanying them. The same principles apply here. They resemble the passive movements of surgery and are a low grade of Osteopathy.

NOTE: THE SHOULDER JOINT is often unable to glide down in glenoid fossa enough to permit raising of elbow above shoulder.

PRINCIPLE. Up to the level of the shoulder the **axis of rotation** is at **head of humerus**. As the latissimus dorsi and pectoralis major are tightened the **axis is changed to their insertion**, and if elbow is carried higher than shoulder there must be freedom of adhesions and enough elasticity of ligaments to permit **head of humerus** to duck down in glenoid cavity as it racks against the long head of the biceps.

Capsular ligament has one inch of slack lengthwise normally if air pressure were removed.

Hum. HUMERUS.

S. AT SHOULDER.

G. GENERAL TREATMENT.

(Hum.S.G.) 1.

USE. 1. For Thickened Ligaments and Adhesions in or above shoulder joint for stretching and by extreme pressure breaking loose.

POSTURE. Patient sitting on low seat. Operator at back.

POSITION. Hand one on humerus, near head. Hand two grasps arm above elbow.

ACTION. (1) **Hand one** forces down with arm held stiff and operator's **weight** assisting as **hand two** lifts elbow beyond the height it easily rises.

(2) Elbow is carried back and forth six to twelve inches as **hand one** continues pressure.

(**Hum.S.G.**) 2.

USE. For anterior or posterior ligaments and adhesions.

POSTURE. **Patient** on back. **Operator** at side, facing head.

POSITION. **Hand one** on humerus, near head. **Hand two** at elbow.

ACTION. **Hand one** presses down and **hand two** holds elbow or lifts slightly and carries it back and forth.

NOTE: If it makes a sudden lunge don't get scared.

If treatment was indicated and judiciously applied.

(**Hum.S.G.**) 3. **ANTERIOR FIBERS** of **DELTOID** under coracoid process with slight **ANTERIOR DISLOCATIONS** of **HEAD** of the **HUMERUS**.

POSTURE. **Patient** sitting. **Operator** at back.

POSITION. **Hand two** grasps arm above elbow. **Hand one** on shoulder.

ACTION. (1) **Hand two** carries elbow **backward** and **upward** to height of shoulder to stretch and relax the fibers.

(2) **Forward**—To loosen.

(3) **Up**—To unhook

(4) **Back**—To normal. In other words, if it were not for the angular movement described it would be backward circumduction of arm.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
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USE	3
1st POSTURE Patient	4
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.....	24

(Hum.S.G.) 4. Stretching LONG HEAD OF BI-CEPS.

POSTURE. Patient on stool. Operator at back.

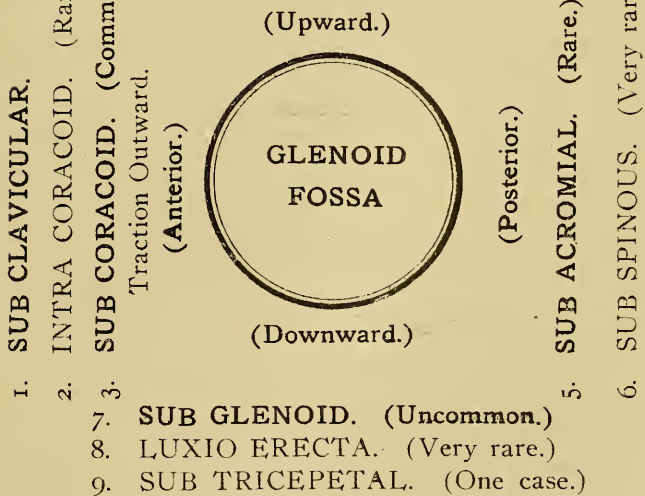
POSITION. Hand one on opposite shoulder. Knee back of shoulder on side to be stretched. Hand two grasps elbow of latter.

ACTION. Hand two and knee hold firmly as hand one pulls elbow backward and upward.

DISLOCATIONS OF SHOULDER.

(In Relative positions.)

4. SUPRA GLENOID. (Very rare.) Traction and Elevation of elbow.



See the Surgeries for diagnosis of limbs in detail.

Anterior Dislocations. (Most common.) The four principal classifications are in heavy type in illustration above.

Ruptures of Capsular Ligament are most common anteriorly.

The **head of humerus** also tends to escape slightly downward and anteriorly in eight out of nine cases. The ninth case being upward and usually requires the fracture of the acromion process to make it possible.

RULE. In reducing a dislocation remember this avenue of escape, using it to retrace the head of humerus.

Surgeons consider shoulder dislocations as frequent as all other dislocations combined.

Hum. THE HUMERUS.

S. AT THE SHOULDER.

D. DIRECT REDUCTION OF LESION. E. EXTREME.

(Hum.S.D.) I. TRACTION WITH KNEE AS FULCRUM.

USE. The three below are used for all dislocations of shoulder, especially in recent cases.

POSTURE. Patient on stool. Operator at back.

POSITION. Operator's knee in patient's axilla, and foot on stool.

ACTION. Pull down on arm and release.

PRINCIPLE of this and the second and third following is that ligaments and muscles are stretched to tire them. The part in the axilla acts as a **wedge** to force head of humerus outward. Upon releasing it springs back to normal.

(KEY TO SYMBOL CONSTRUCTION)

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SYMBOL. MECHANICAL PRINCIPLE.

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(Hum.S.E.) 1. **TRACTION with FOOT in AXILLA as a FULCRUM.**

POSTURE. Patient supine. Operator at side.

POSITION. Operator removes shoe and places foot in axilla as hands grasp arm.

ACTION. Pull arm toward foot and release it.

PRINCIPLE is that of traction and a first-class lever.

(Hum.S.E.) 2. **TRACTION in SWING as a FULCRUM.**

POSTURE. Patient standing. Operator crouching at side.

POSITION. Patient's arm in loop or hook of swing.

ACTION. Pull down and release it.

Hum. THE HUMERUS.

A. ANTERIOR LUXATION.

D. DIRECT REDUCTION OF LESION. E. EXTREME.

(Hum.A.D.) 1. **HAND as FULCRUM with ARM LEVERAGE.**

POSTURE. Patient sitting. Operator at back.

NOTE: A general treating of joint may or may not proceed.

POSITION. **Hand one** grasps arm one of patient, reaching under axilla and grasping humerus near head, **thumb** pointing outward. **Hand two** grasps elbow, crossing **hand one**.

ACTION. (1) **Hand two** draws elbow back at level of shoulder.

(2) Carry elbow forward, circling across chest as **hand one** opposes or draws back on head of humerus, as if to drag it back into glenoid fossa.

(Hum.A.E.) 1. HYPOTHENAR EMINENCE AS FULCRUM WITH ARM LEVERAGE.

The same as **B.R.Hum. 4**, just preceding, only with **operator** at side, facing head.

POSTURE. **Patient** on back, arms pointing straight out from side.

POSITION. **Hand one** grasps humerus of patient near shoulder. **Hand two** grasps elbow.

ACTION. Relatively the same as the one just preceding.

NOTE: If head will not stay in socket try two or three months' vacation for muscles to relax and atrophied oneself to develop.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
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POSTURE Patient	4
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2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE	15

Ulna and Rad. **ULNA AND RADIUS.****E. LUXATED AT ELBOW.****G. GENERAL TREATMENT. E. EXTREME.**

(Ulna. and Rad.E.G.) **1. RADIUS AND ULNA
BACKWARD, INTERNAL OR EXTERNAL;
OR ULNA BACKWARD.**

POSTURE. Patient sitting. Operator at side.

POSITION. Operator's knee in cubital fossae, with elbow held at right angles. **Hand one** grasps patient's wrist as a lever. **Hand two** supports shoulder.

ACTION. Strong traction downward with knee.

(Rad.E.E.) **1. WITH SWING OR ASSISTANT.**

Same as No. 1, just preceding, except patient's shoulder is in a swing or sling made of a doubled towel held by an assistant.

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

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PRINCIPLE	15
DEGREE	18

Rad. RADIUS.

E. LUXATED AT ELBOW.

P. POSTERIORLY. A. ANTERIORLY.

(Rad.E.P.) 1.

POSTURE. Patient sitting. Operator at side, away from lesion.

POSITION. Fingers of hand one grasp head of radius posteriorly, palm upward. Hand two grasps patient's wrist.

ACTION. Hand two circles forearm and extends it at elbow, bringing direct pressure to force head of radius forward.

(Rad.E.A.) 1.

(1) Hand is supinated.

(2) Apply traction.

(3) Direct pressure at lesion with normal movements of arm, if necessary.

PRINCIPLE of dislocations in the forearm is that the large end of bones are usually fixed if there is a single dislocation, and the small end beside it does the slipping; i. e., the head of the radius and the distal end of the ulna.

Ulna. and Rad. **ULNA AND RADIUS.**

W. LUXATED AT WRIST.

G. GENERAL TREATMENT.

(Ulna and Rad.W.G.) **1. SIMPLE TRACTION.**

NOTE: Both ulna and radius may be forward, backward and outward.

ACTION. Apply traction opposing at elbow.

POSITION. Elbow is held by operator's assistant, or in swing or over edge of treating table. Patient's hand is grasped, as if shaking hands, and wrist is also grasped.

Ulna and Rad. **ULNA AND RADIUS.**

W. LUXATED AT WRIST.

P. POSTERIORLY.

(Rad.W.P.) **1. FINGER FULCRUM AND HAND LEVERAGE WITH THENAR EMINENCE AT LESION.**

USE. Posterior radius or ulna often found in weeping sinews or ganglions of wrist, also apply to anterior conditions and to carpal and metacarpal bones.

POSTURE. Patient sitting on stool. Palm down on table. Operator at side.

POSITION. Hand two grasps affected hand, so that index and middle fingers support carpus and rest on table.

Thenar eminence of hand one rests on radius, near wrist, at back of arm.

ACTION. **Hand one** applies pressure downward as **hand two** swings patient's hand laterally, while **fingers of hand two** lie on table, supporting wrist.

Ulna. and Rad. ULNA AND RADIUS.

W. LUXATED AT WRIST.

A. ANTERIORLY.

(Ulna and Rad.W.A.) 1. Same principle as (Ulna and Rad.W. P.) 1, just preceding, except patient's palm is supinated.

USE. For either one or both bones.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
..... Operator	5
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
1 or, a	11
.....	12
PRINCIPLE	15
DEGREE	18
CAUTION	20
NOTE	22

Car. CARPAL.**Os. OS MAGNUM (OR OTHER BONES).****P. POSTERIORLY. A. ANTERIOR.**

(Car.Os.P.) 1. Same principle as (Ulna and Rad.W.P.)
1, the second preceding, as well as for (Phal.1 P.) 1,
the third following.

Meta.Car. METACARPAL.**1. NO. 1 (OR OTHER BONES).****P. POSTERIOR. A. ANTERIOR.**

(Meta.Car.1 P.) 1. Same principles are employed as
in the following for phalanges.

Phal. PHALANGES.**1. NO. 1 (OR OTHER BONES).****P. POSTERIOR. A. ANTERIOR.****(Phal.1 P.) 1.**

POSITION. Hand one grasps affected finger.
Hand two, or assistant, grasps wrist or arm.

ACTION. (A) Hand one applies traction.
Hand two opposes.

(B) Or exaggeration, then traction and direct
pressure.

(C) Or traction and rotary oscillation with direct
pressure.

THE LOWER LIMB.

GENERAL, PALLIATIVE OR SECONDARY TREATMENT.

RULE 1, or RULE of SPRINGING A JOINT.

Flexing or springing a joint stretches the muscles and ligaments crossing the opposite side of the joint directly supported.

MUSCLES STRETCHED;	POSTURE;	POINT OF PRESSURE;	JOINT SUP- PORTED;	RESISTING FORCE
(M.Tocs.I.) 1 Flexors of toes	Supine	Toe tips	Tarsal	Patient's Weight
(M.Foot.I.) 1 Flexors of foot	Supine	Ball of Foot	Tarsal and Metatarsals	Patient's Weight
(M.Calf.I.) 1 Muscles of calf	Supine	Ball of Foot	Tarsal and Metatarsals	Patient's Weight
(M.Foot.I.) 1 (M.Leg.A.) 1 (M.Thigh.P.) 1 (M.Calf.P.) 1 Flexor Brevis digi- torum and anterior muscles of leg	Supine	Dorsum of foot	Heel	Table
(M.Thigh.P.) 1 (M.Calf.P.) 1 Posterior thigh and calf muscles	Supine	Lifting at heel	Downward on knee	Table
(M.Thigh.A.) 1 Anterior thigh An- terior crural nerve & femoral vessels	Prone	Lifting on knee	Downward pressure hip	Table

THE LOWER LIMB (Continued).

RULE 2., or RULE of STRONG FLEXION.

Strong flexion stretches muscles and ligaments crossing the joint on the extended or convex side.

	STRUCTURES STRETCHED;	PATIENT'S POSTURE;	POINT OF PRESSURE;	JOINTS FLEXED;	RESISTANCE OF PRESSURE;
(M.Thigh.A.) 2	Quadriceps extensor, anterior ligaments, etc.	Supine	Ankle (Downward)	Knee on abdomen	Table at back.
(M.Hip.P.) 2	Posterior thigh and buttock	Supine	Knee (Downward)	Hip	Table at back.
(M.Plantar. I) 2	Plantar and Calf muscles	Supine	Ball of Foot	Ankle	Patient's weight on table.
(M.Calf.I.) 2 (M.Thigh.P.) 2	Sciatic nerve and posterior thigh muscles	Supine with knee flexed	Knee or patella	Hip	Heel.
(M.Thigh.P.) 2 Modified	Sciatic nerve and posterior thigh muscles	Supine with leg vertical	Knee or patella	Hip and ankle	Ball of foot.

RULE 3, or RULE of ABDUCTION AND ADDUC-TION.

Abduct to stretch adductors, and adduct to stretch abductors.

(M.Gt.Toe.I) 3. Great toe is abducted if angle is too great, as in bunions.

(M.Thigh.Add.) 3. Adductors of thigh.

(a) Adductors of thigh are stretched by spreading feet, either with both feet on table and operator at side, if very tense, or,

(b) With operator between feet, with one foot of patient on table.

RULE 4, or RULE of ROTATION AND CIRCUM- DUCTION.

Stretch external rotators by internal circumduc-tion, and internal rotators and adductors by external circumduction.

EXAMPLE: The THIGH.

(M.Ex.Rot.) 4.

(M.Int.Rot.) 4.

POSTURE. Patient supine. Operator at side.

POSITION. Hand one on knee. Hand two at heel.

ACTION. Keep heel drawn in opposition to knee as thigh is flexed upon abdomen and circumducted, i. e., as knee is circled inward heel is thrown inward.

RULE 5, or RULE of LATERAL STRETCHING.

Muscles may be stretched transversely and generally relaxed by direct pressure at right angles, providing their insertions are fixed.

REGION STRETCHED	POSTURE;	POSITION		ACTION
		Hand one;	Hand two;	
(M.Thigh.G.) 5	Supine knees flexed and feet on table	Posterior thigh muscles (Reaching underneath.	Steadies knee	Carry muscles laterally to and from Operator.
(M.Calf.G.) 5	Supine knees flexed and feet on table	Calf muscles.	Steadies knee	Carry muscles laterally to and from Operator.
(M.Thigh.G.) 5	Supine	Fingers of both hands internal on thigh, thumbs external grasping muscles. (Also applied to arm, forearm, and calf.)		Hands oppose carrying muscles around thigh and repeat.

THE HIP

1. TO TEST FOR ANCHOLOSIS, or contractured adductors:

Abduct leg and watch opposite anterior superior spine to see if it follows down, as in moving a hammer handle moves the head of the hammer.

2. HILDRETH'S TEST FOR ANCHOLOSIS:

Grasp great trochanter and crest of ilium on anterior superior spine and rotate limb to get motion.

3. TEST FOR ANCHOLOSIS. Dorsal position:

Patient on back. If knee is flexed force it to table and watch if lumbar region becomes more concave.

REDUCTION. If head fails to find lodgment in socket nature will aid during a rest from treatment; muscles will become strengthened and inflammation subside.

DISLOCATIONS OF HIP.

THE OLD AND MORE COMMON CLASSIFICATION.

(By far the most frequent)

DOR. ILLIUM
BACKWARD
 and
UPWARD

Toes In

SCIATIC

BACKWARD

Toes In

Dotted lines show
 the vertical path of
 the Great Trochanter:—Leg extended



GREAT TROCHANTER

The Primary One

OBTURATOR
FOREWARD
 and
DOWNWARD

Toes In or Out

Toes out

THE NEW CLASSIFICATION (Allis).

HIGH DORSAL.

MID DORSAL

LOW DORSAL
 (All toe in.)



(Upper two toe out.)

HIGH THYROID

MID THYROID

LOW THYROID
 (Toe in or out.)

(See surgeries for diagnosis of limbs in detail.)

(See McConnell and Teal also, for Laughlin on the hip.)

RULE. Head either lodges in an opening or the body weight forces it higher and in or around acetabulum.

Distance up and back estimated by length of limb, sitting or standing.

The axis of limb rotation extends from the great trochanter to the heel when limb is straightened.

The head and neck of the femur and the toes and foot of the patient, being at the extremities of this line, are at right angles to each other.

It is obvious that when the head is carried posteriorly the toes will be carried inward; or when head is carried anteriorly the toes are carried outward.

The exceptions being the obturator dislocation when head is free to swing either way beneath pelvis.

Ruptured Y ligaments and relaxed condition of other muscles and ligaments may allow trochanter to fall away from pelvis, and if head of femur has partly disappeared from tubercular conditions, it may glide anterior or posterior, throwing toes either in or out.

NOTE. The sciatic dislocation is in reality posterior and slightly upward in relation to the acetabulum, but is downward in relation to the obturator internus muscle. It being the dividing line between the sciatic and the dorsum of the ilium dislocations.

Even the sciatic dislocation is above Nelaton's line, as it only rests on rim of sciatic notch.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE.....	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

Fem. FEMUR.

BU. BACKWARD AND UPWARD.

D. DIRECT REDUCTION OF LESION.

(Fem.BU.D.) I. TROCHANTER FULCRUM
WITH LEG AND THIGH LEVERAGE.

(Leg short and toes point inward.) On dorsum of ilium.

NOTE: Traction and muscular relaxing may precede treatment.

POSTURE. Patient supine. Operator at side.

POSITION. First. Hand one on knee. Hand two across instep, grasping heel.

ACTION. First. Flex knee at right angles.

ACTION. Second. Adduct diagonally up and across to carry head forward and below acetabulum.

POSITION. Second. Change hand one to support great trochanter by doubling up the fist with radial side up and chin or axilla to hook over knee.

PRINCIPLE. Hand one is fixed as a fulcrum and thigh as a lever, with pelvis as the weight, acting as a claw hammer drawing a nail.

ACTION. Third. Abduct knee, swinging feet outward and heel inward—to throw or draw head up into acetabulum from below.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	I
.....	2
USE	3
1st POSTURE Patient	4
..... Operator	5
2d	6
1st POSITION Hand one	7
..... Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, b	12
3 or, c	13
4 or, d	14
PRINCIPLE.....acts as a ... class lever.....	15
..... acts as a fulcrum with.....	16
as the power and.....as the weight.....	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

Fem. FEMUR, HEAD OF.

B. BACKWARD AND DOWNWARD.

D. DIRECT REDUCTION, I. INDIRECT.

(Fem. B. D.) 1 Trochanter fulcrum with thigh leverage and traction.

(Leg short and toes inward.) As patient lies, then sits, leg shortens.

POSTURE. Patient supine. Operator at side.

POSITION. Hand one grasps great trochanter and hand two knee.

ACTION. Hand two may apply traction in addition to previous treatment at fourth ACTION as above described.

NOTE: Pelvis may be held down while reducing a hip joint dislocation:

FIRST. By an assistant at opposite side reaching across and grasping table so as to bear down on pelvis with forearms.

SECOND. By hook of a swing with screw eye in floor, or with screw eye in table and a board underneath to loop strap under. Board 6 ins. wide is hinged to hang vertically from table at opposite side from lesion so as to fold crosswise underneath table when not in use.

(Fem.BU.D.) 1 and (Fem.BD.D.) 1 MODIFIED. The two just preceding may be given sitting, with same manipulation of leg, with the aid of a padded concave block or sandbag under upper end of femur as a fulcrum.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the **Structure**, 2d for **Region**, and 3d **Class**.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
1st POSTURE Patient	4
.....Operator	5
2d	6
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
Consecutively. Simultaneously.	
1 or, a	11
2 or, c	12
3 or, d	13
4 or, b	14
PRINCIPLE.....acts as a ... class lever	15
..... acts as a fulcrum with	16
as the power and.....as the weight	17
DEGREE	18
.....	19
CAUTION	20
.....	21
NOTE	22
.....	23
.....	24

(Fem.BU.I.) 1. **TRACTION WITH KNEE FULCRUM AND LEG LEVERAGE.**

NOTE: The stages and principles about corresponding with supine posture.

POSTURE. Patient standing with hands on a support to steady him, and, in addition, it is still better if arms are supported in a swing at axilla. Operator behind and to one side.

POSITION. Patient's thigh vertical, knees at right angles. Operator's knee in popliteal space of patient. Hand one supports ankle.

ACTION. FIRST. Operator applies his weight—To drag head toward acetabulum.

SECOND. Swing ankle out—To let head slide around beneath acetabulum.

THIRD. Swing ankle in—To throw head into acetabulum.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
ACTION	10
.....	11
.....	12

Fem. FEMUR.**FU. FORWARD AND UPWARD.****I. INDIRECT REDUCTION.**

(Fem.FU.I.) 1. On crest of pubis. (Toe always out.)
As patient lies, then sits, leg lengthens.

FIRST POSTURE. Patient on side, lesion up.

POSITION. Hand one on knee. Hand two on hip.

SECOND POSTURE. Roll on face.

FIRST ACTION. Hyperextend thigh by hand one lifting knee and hand two forcing hip to table.

SECOND. Assume first position and flex thigh slightly, and

THIRD. Attempting to lift head over pubic crest with the aid of assistant holding upper thigh in a sling, or having a swing as a fulcrum, using femur as a lever to pry it over.

Fem. FEMUR.**FD. FORWARD AND DOWNWARD.****I. INDIRECT REDUCTION.**

(Toe in or out.)

(Patient lies, then sits, and leg lengthens.)

POSTURE. Patient supine. Operator at side.

POSITION. Hand one on knee. Hand two grasps feet.

ACTION. a. Flex knee and thigh on abdomen.
b. Carry knee diagonally upward and inward.
c. Continuing to make forcible internal circumduction.

d. Extension.

Tib. and Fib. TIBIA AND FIBULA.**K. AT KNEE.****I. INDIRECT REDUCTION.**

(Tib or Fib. K.I.) 1.

Same dislocations as ankle—four direction of both bones. In addition the fibula slips alone and usually backward.

Strong traction restores both bones if slipping together, but, in addition, the fibula may need special attention if a sprained ankle of short, and especially one of long, duration is present.

Fib. FIBULA.**K. AT THE KNEE.****D. DIRECT REDUCTION. E. EXTREME.**

(Fib.K.D.) 1.

NOTE: The external popliteal nerve is often impinged as it passes around the head of the fibula and the various pains throughout the distribution of the anterior tibial nerve can often be relieved here.

Diagnostic tenderness found below head externally.

POSTURE. Patient supine or sitting. Operator in front.

POSITION. Hand one grasps leg below knee from opposite side, fingers of hand one grasping fibula. Hand two holds ankle, flexing it slightly.

ACTION. a. Extend knee to a straight line, at the same time gripping so as to draw head of fibula forward.

(Fib.K.E.) 1. MODIFIED. Reinforced.

POSTURE. Patient sitting. Same as (Fib.K.D.) 1, just preceding, except:

POSITION. Hand two reinforces hand one, and patient's stockinged foot rests against operator's knee.

ACTION. Force knee down to extend as operator's knee carries patient's foot, and hands grip to draw fibula forward.

(KEY TO SYMBOL CONSTRUCTION)

1st letter the Structure, 2d for Region, and 3d Class.

SYMBOL. MECHANICAL PRINCIPLE.

(.....)	1
.....	2
USE	3
POSTURE Patient	4
.....Operator	5
1st POSITION Hand one	7
.....Hand two	8
2d	9
ACTION	10
.....	11
.....	12
PRINCIPLE.....acts as a ... class lever.....	15
DEGREE	18
CAUTION	20
NOTE	22

TABLE OF INNOMINATE TREATMENTS

INNOMINATE DIRECTION NATURE OF TREATMENT	MECHANICAL	POSTURE		POSITION.		ACTION	
	PRINCIPLE	Patient	Operator	HAND ONE	HAND TWO	HAND ONE	HAND TWO
(I. ANY I.) 1	Chance.	Supine		At Sacro-Iliac Synchondrosis	Grasps Heel 2 or nearest	THIGH—Flexion, abduction and external circumduction.	
(I.A.I.) 1	Flexed limb ever Indirect leverage	Knee and thigh flexed Side—Dr. Back		at Posterior Sacrum	Grasps (upper) knee 2. Flexed against body.	Incline patient backward and reinforce Elbow 2 by Knee and Foot.—Pull & Force	
POSTERIOR							
(I.P.D.) 1	Wheel and lever	On side with el- bow against Dr.		Post. Sup. Spine	Anterior Thigh.	Force suddenly as if trying to slide a large box.	Carrying limb back
(I.P.D.) 2	Wheel and lever	Side—Dr. back		Post. Sup. Spine	Grasping Knee.	Force suddenly	Carrying limb back
(I.P.D.) 3	Wheel and lever	Prone.		Post. Sup. Spine	Supporting Knee.	Downward pressure	Lift and Adduct
(I.P.D.) 4	Trunk leverage	Sitting with knee at wall		Post. Sup. Spine	Grasping as in the "flying wedge treat's"	Reinforced pressure	Carry trunk back
ANTERIOR							
(I.A.D.) 1	Wheel and axle	Side—Dr. back.		Ant. Sup. Spine.	Tuberosity, Ischium	With operator's elbows far apart	
(I.A.D.) 2	Wheel and axle (with exposure)	Side—Dr. front.		Supports thigh and grasps tuberosity.	Ant. Sup. Spine.	Force—SUDDENLY	Force
(I.A.D.) 3	Wheel and axle (No exposure)	Thigh and knee flexed.		Supports ankle and grasps tuberosity.	Ant. Sup. Spine.	Lift & pull—SUDDENLY	Force
						Pull—SUDDENLY	Force
(I.A.D.) 4	Wheel and axle momentum (No exposure)	Side—Dr. front. Side—Dr. back.		One suspension, hook Supports knee	Hands at Tuberosity and Ant. Sup. Spine.	Limb swinging and elbows far apart Force—SUDDENLY (at end of stroke)	Force

This table is continued on following page. See explanation following also.

TABLE OF INNOMINATE TREATMENTS—Continued.

INNOMINATE DIRECTION NATURE OF TREATMENT	MECHANICAL	POSTURE		POSITION		ACTION	
	PRINCIPLE	Patient	Operator	HAND ONE	HAND TWO	HAND ONE	HAND TWO
POSTERIOR							
(I.P.E.) 1	Wheel and lever and momentum (No exposure)	Elbow against Dr. Side—Dr., front.		One suspension hook supports knee.	Hands at Ant. Thigh and Post Sup. Spine.	Limb swinging and elbows far apart Force—SUDDENLY (at end of stroke)	Force
ANTERIOR							
(I.A.E.) 1	Wheel and axle and momentum. [No exposure]	Side—Dr., back.		One suspension hook supports knee.	Hands at Tuberosity & Ant. Sup. Spine.	Limb swinging and elbows far apart Force—SUDDENLY (at end of stroke)	Force
(I.A.E.) 2	Wheel and axle (with exposure)	Sitting on stool. Back at wall.		Hand 1 grasps tuberosity, reaching between thighs.	Ant. Sup. Spine.	Pull—Suddenly	Force
ANTERIOR And UP.							
(I.A.U.D.) 1	Windlas. (Drs. hips.)	Side—Face foot.		Crest of Ilium.	Lies back of Dr.'s waist, palm out. Grasp elbow.	Dr. Rotates body to wind arm around. Force Ilium. (SEE (R.D.I.) 1)	Pull arm.
POSTERIOR And UP.							
(I.P.U.I.) 1	Wheel and lever	Elbow against Dr. Side—Dr., front.		Post. crest of Ilium.	Anterior Thigh.	As if trying to slide a large box Force—SUDDENLY	Force

CAUTION—The (I.P.D.) treatments or wheel and lever treatments require greatest pressure at Post. Sup. Spine and proportionally less as you work out on the lever.

When limb is suspended at knee; patient should keep knee stiff, incline pelvis slightly forward and devitalize limb at hip joint. After about two swings to and fro, aim to take patient unawares as pressure is applied for rotation.

INDEX TO WRITTEN TREATMENTS

TECH.

PAGE.

[illegible]

INDEX TO WRITTEN TREATMENTS

TECH.

PAGE.

[illegible]

VARIETIES OF INDEX EXPLAINED

THE KEY TO SYMBOLS (Page 1).

(For Indexing at Sight)

This should be committed to memory so as to be able to assemble the pages of this book if the pages were scattered and the numbers gone. Use the key like you would the figures up to 474, each letter of symbol representing a figure, and a symbol for each treatment.

THE SYMBOL INDEX (Page 6).

This is a condensed guide to the technique as well as to the mechanical principles, or names of Osteopathic technique.

THE MECHANICAL PRINCIPLES OF OSTEOPATHIC TECHNIQUE (Page 15) (Index of names).

These act as names to indicate the treatments. If not sufficiently understood the page numbers following guide to the technique in detail.

THE TECHNIQUE (Page 70)

This is practically indexed itself. As any symbol, traced back to No. 1, has the explanation preceding it.

This brings us up to the GENERAL INDEX, making the book an index system from beginning to end with everything pigeon-holed where losing it is impossible.

(Numbers printed in bold face type refer to the Mechanical Principles of Osteopathic Technique, or names.)

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